



Operational Testing Program Manual

Effective April 1, 2019



General Notice

The intended purpose of the CSX Operational Testing Program is to establish and maintain a safe and effective work environment for all employees, and is required by federal regulation 49CFR §217.9. Operational tests are conducted to evaluate compliance with the CSX Employee Operating Manual, CSX Procedural Instruction Manual, and Timetable Special Instructions (hereafter collectively designated as “Rules”). Employees working in the Transportation, Mechanical, and Engineering Departments are subject to operational testing as designated by these guidelines.

The safety of the public, the employees, and the supervisor(s) must always be the first priority when performing operational testing. Strict compliance with the rules is essential to the safe and efficient operation of the railroad. The purpose of testing is to achieve the highest level of rules compliance possible. Properly conducted tests follow the guiding principles and improve customer service by:

1. Operating Safely - Improve and maintain employee alertness,
2. Controlling Costs - Reduce risk of accident caused by human error
3. Optimizing Asset Utilization - Enable the company to measure general and specific areas of rule compliance so that overall rule compliance can be maintained and improved.
4. Valuing and Developing Employees - Provide supervisors with an immediate evaluation of an employee’s application, understanding, and compliance with rules. Also, assist supervisors in educating employees on the correct way to apply rules in actual operating situations.

Operational tests provide employees an opportunity to demonstrate their ability to apply the rules and special instructions in the work environment. Supervisors involved in operational tests should commend employees when they demonstrate proper knowledge and understanding of rules. While employees found in violation of rules that may compromise their personal safety or the safety of others must be addressed immediately. Supervisors are expected to maintain CSX policy for handling such matters in a professional manner. Operational testing must not be used as a tool for harassment.

This document contains specific requirements regarding the operational testing program as well as the operational tests that can be performed. The requirements contained within this document will be amended as necessary through system notices.

The Operational Testing Program is issued under the authority of Vice President & Chief Safety Officer, Jim Schwichtenberg.



James P. Schwichtenberg
Vice President & Chief Safety Officer

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Introduction

INTRODUCTION

CSX Operational testing will be conducted by observing employees performing defined activities, and these activities are designated in this document by Test number. The rules associated with the activity are listed under the description of each Test along with the procedures. Failures are also defined by Test.

Minimum testing requirements will be set quarterly and designated by System Notice at the beginning of each quarter. Supervisors must document the result of each employee's compliance with all applicable rules listed under the individual Test. Failure of any rule listed for the particular test is a failure of that test.

PURPOSE

These guidelines support supervisors in maintaining a safe and compliant work environment by establishing operational testing standards on a system basis.

OBJECTIVE

Operational testing is designed to evaluate rules compliance. Achieving this objective is dependent upon the feedback the operational testing supervisor must provide to the employees—reinforcing positive behavior as well as correcting those that are non-compliant.

SAFETY

Safety is the first and foremost responsibility of all employees at CSX. Supervisors must conduct operational tests in a manner that does not jeopardize or compromise the safety of the public, the employees, or themselves. Circumstances surrounding an operational test must not create a hazardous condition for the employees being tested or the testing supervisors.

The following practices are used to ensure the safety of our employees, supervisors, and the public:

- A. Affecting Train Movements** – A supervisor in the appropriate train dispatching office must be informed when testing will stop main track train movements. Planned tests that will stop passenger or commuter trains may require communication of such intentions to the appropriate supervisor in Passenger Operations. When performing operational tests that will require the movement to stop, a supervisor with a radio must remain positioned to stop movement or activity if necessary for safety.
- B. Use of Track Shunts** – Track shunts must only be used by a supervisor who is trained on the proper procedures and use of track shunts.

Note: FRA Regulation Signal Inspection Act, Governing use of signal system in tests

49 CFR Part 236 – Installation, Inspection, Maintenance, and Repair of Systems, Devices, and Appliances. Section 236.4 – Interference with normal functioning of device:

The normal functioning of any device shall not be interfered with in testing or otherwise without first taking measures to provide for safety of train operation which depends on normal functioning of such device.

- C. Public Crossings at Grade** – Supervisors must be aware of all highway-rail crossings and must not perform operational tests that would cause a malfunction of the automatic grade crossing warning device(s) or create a hazardous condition for the public.
- D. Use of Personal Protective Equipment (PPE)** – PPE is mandatory for supervisors, state and federal inspectors, foreign railroad supervisors, Amtrak supervisors and any other person actively engaged

in or observing operational testing on CSX property.

TYPES OF OPERATIONAL TESTING

- ✓ **Mandatory Observation Test** – Does not require the supervisor to change the work environment. Observations tests are to be performed as the supervisor carries out other testing duties and must be done in all cases when possible.
- ✓ **Operational Test** – Requires planning and may require the testing supervisor(s) to change the work environment. Planned tests are conducted by supervisors to evaluate compliance with the rules by an employee or group of employees. Planned operational testing may be conducted either announced or unannounced.

EMPLOYEE'S KNOWLEDGE OF OPERATIONAL TESTING

It is essential that employees know they can be operational tested at any time or place. Therefore, it is important to conduct operational tests with and without the employees' knowledge.

- ✓ **Conducting without the employees' knowledge** – Ensures the performance being tested is a reflection of the operations and the employees' ability to comply with the procedures described by the rules without direct supervision. Employees should be made aware of the testing results as soon as practical.
- ✓ **Conducting with the employees' knowledge** – Provides the advantage of developing immediate employee contact and feedback to enhance positive attitudes and job satisfaction.

During operational testing supervisors must:

1. Engage employees by complimenting compliance and addressing noncompliance, and
2. Address questions and concerns on rule application.

Anytime a supervisor notes a non-complying rules condition, all involved must be notified of the exceptions and the corrective action taken. The supervisor may require the movement or activity to be stopped safely before immediately addressing the incident.

Employee's Access to Operational Tests

Operational test results are accessible by employees through the Operating Practices Tracking System (OPTS).

ORGANIZATIONAL PLAN/MANAGERIAL ROLES

Director of Operating Rules and Practices – Administers CSX's Guidelines for Operational Testing on a system-wide basis and will designate testing focuses based on accidents and personal injury trends as well as other pertinent safety data across the network. Operational testing focuses will be designated by special instruction to both employees and supervisors.

Director of Safety and Operating Practices – Are responsible for ensuring implementation and compliance with the CSX's Guidelines for Operational Testing for the territory he or she is assigned.

Responsibilities also include:

1. Determining when a supervisor is qualified to perform operational testing,
2. Designating areas of concentration based on accidents and/or personal injury trends for their area of responsibility, and
3. Prescribing additional operational tests deemed necessary above the minimum requirements.

SUPERVISORS REQUIRED TO PERFORM OPERATIONAL TESTING

Qualified Testing Supervisor

Only those who have been qualified to do so may perform operational testing without direct supervision. Once qualified, a record of the qualification must be sent to the office of Director of Operating Rules and Practices and will be kept on file electronically.

Qualifications

In order to be qualified to perform operational testing, supervisors must meet the minimum standards below:

1. Attend rules training and pass required rules test at least every three years, and
2. Demonstrate proficiency in performing operational test activities for the test(s) they are performing.

Qualification Period

Supervisors who are not qualified may only perform operational tests under the direct supervision of a qualified supervisor. The length of the qualification period is dependent on the experience and progress of the supervisor's ability to perform operational tests in accordance with these guidelines. The Director of Safety and Operating Practices and a regional staff member will determine when a supervisor is qualified to perform operational tests.

EMPLOYEES SUBJECT TO OPERATIONAL TESTING

All CSX non-management employees, non-management employees of foreign railways and contractors working safety sensitive positions on CSX property are subject to operational testing while on duty.

FREQUENCY AND REQUIREMENTS FOR OPERATIONAL TESTING

Supervisors who are required to perform operational tests must meet the minimum requirements stated. Regional leadership may require additional tests for his/her territory. Supervisors may perform additional testing above the stated requirements as needed.

A. Conducting Operational Testing – When planning and performing operational tests, the testing supervisor must take the following criteria into consideration and ensure testing is conducted:

1. At various times of the day, week, and month,
2. In various locations,
3. On weekends and holidays,
4. On foreign road crews and passenger operations where such crews operate.

B. Transportation – Defined by System Notice and at a minimum will focus on:

1. Hand operation of switches and derails,
2. Protection of shove moves,
3. Equipment left clear of adjacent tracks,
4. Securement of equipment,
5. Main track authority (signal & non-signal),
6. Train required to stop (Work zones, approach/stop signals),
7. Going between equipment/separation of equipment, and
8. Riding/Mounting/dismounting equipment

C. Dispatching Offices – Defined by System Notice and at a minimum will focus on:

1. Authorities governing the movement of trains and on-track equipment,
2. Radio and wireless communication procedures,
3. Protection of on-track workers and/or equipment,
4. Emergency preparedness, and
5. Transmission of mandatory directives and Form EC-1 instructions.

D. Engineering – Defined by System Notice and at a minimum will focus on:

1. Roadway worker protection: controlled and non-controlled track,
2. Operating on-track equipment: required spacing and ½ range of vision,
3. Working with on-track equipment: red zone,
4. Working under a load,
5. Fall protection,
6. Use of seatbelts, and
7. Lockout/tag out
8. Working beneath loads (including trees)

Note: Operational testing is the procedure used to monitor the effectiveness of CSX's on-track worker safety program required by 49 CFR Part 214.303(b).

E. Mechanical – Defined by System Notice and at a minimum will focus on:

1. Blue signal protection,
2. Operating switches/derails,
3. Jacking Equipment,
4. Equipment Securement,
5. Leaving equipment clear of adjacent tracks,
6. Operating machines and moving equipment (red zones),
7. Fall prevention, and
8. Energized Equipment (Lockout / Tag out)

RECORDKEEPING

Supervisor's Records

Supervisors will record results of operational tests in the Operating Practices Tracking System (OPTS). Observations and Tests must be entered into OPTS within the timeframe designated in System Notice.

Reports and Periodic Reviews

The records contained within OPTS will serve as the official CSX operational testing record. To identify trends, develop action plans, and for record retention purposes:

- ✓ Company operational testing records (OPTS) and reviews must be available during regular business hours and furnished upon request.
- ✓ Quarterly reviews must be performed within thirty (30) days of the end of a quarter and be provided to System Safety as well as the Regional GM's for review to assist in determining future testing focus areas.
- ✓ Six (6) month reviews and annual summary reviews will be performed and available upon request.

OPERATIONAL TESTING VIA ELECTRONIC, DIGITAL OR OTHER TECHNOLOGICAL MEANS

1. **Event Recorders** – Event recorders or other analytical software may be utilized as a means to determine the employee's compliance with current rules.
2. **Using Information Obtained from Data Sources** – Operational testing can be conducted using information obtained from locomotive cameras, official recorded CSX radio or other CSX communication or dispatching systems, or any other technological means used to retrieve data. All applicable rules may be monitored using this data. The test date will be the date the event occurred.

3. Drones (UAS) – Use of Drones for Operational Testing may be utilized but can only be done by a Supervisor under following conditions:

1. Holds a current remote pilot certificate in accordance with 14 CFR 107
2. Has successfully completed training on CSX Drone Policy and Procedures
3. Has documented skills proficiency sign off by CSX Chief Pilot or designee
4. Utilizes a CSX supplied device with current FAA registration as well as a current insurance document accompanying them while testing
5. Is accompanied by a trained visual observer at arm's length with eyes on the device at all times while in flight.
6. Is only operated from Sunrise to Sunset (Daylight only)
7. Has completed both the Operational and Mission checklist prior to each flight
8. Fully completes the flight details in the aircraft logbook at the end of each flight

Mandatory Observation Tests

Observation Test 1: Personal Protective Equipment (PPE) Compliance

Rules

- Rule Group 2009 – Personal Protective Equipment (PPE)
- Rule Group 2011 – Using Life Vests
- Rule Group 2012 - Arc Flash and Electrocution Hazard PPE
- Rule Group 2013 – Flashlights and Lanterns

Purpose

This Observation verifies compliance with employee's personal protective equipment requirements

Preparation & Conditions

Determine the type of specific PPE required for the observed activity. Can be conducted at any time employees are on duty performing work tasks that require PPE

Procedure

Supervisor will observe the employee(s) and verify that job specific PPE requirements have been met, including but not limited to:

- Safety Eye Protection that meets CSX requirements
- Hearing protection when required
- Reflective Material Clothing when required
- Hard Hats or Bump caps when required
- Lace-up safety boots (Six inch or more high top – Defined heel no more than 1 inch)
- Safety toes required for Mechanical and Engineering
- Use of respirators where required
- Use of Flame resistant material where required
- Use of Face Shields where required
- Proper PPE when performing activities subject to Arc Flash and Electrocution Hazards
- Use of Flashlights and/or Lanterns when sunlight is not adequate to safely perform task.

Failure Defined

This is non-compliant when employees are not wearing or utilizing the proper PPE for that activity being performed or not using the PPE for what it was designed for.

Observation Test 2: Required Certification Cards (Transportation only)

Rules

Rule Group 108 – Certifications and Licenses

Purpose

This Observation determines if employees have the required conductor and locomotive operator certificates in their possession

Preparation & Conditions

This can be conducted at any time employees are on duty.

Procedure

Required documentation

Check the locomotive operator and conductor certificates to ensure they are in possession of the current Certificate and verify the endorsement(s) of Conductor, RCO and/or Locomotive Engineer are accurate.

Failure Defined

Required documentation

This is non-compliant if the employee does not have in their possession the current certificate to perform service. If this occurs, the employee cannot continue to perform service until the certificate is in their position. Temporary certificates can be generate from the Regulatory Certification System (RCS). Permanent certificates can be ordered via RCS.

Observation Test 3: Radio Rules Compliance

Rules

- Rule Group 1003 – General Radio Rules
- Rule Group 1004 – Radio Requirements for Trains and On-Track Equipment
- Rule Group 1005 – Testing Radio Equipment
- Rule Group 1006 – Positive Identification
- Rule Group 1007 – Transmitting by Radio
- Rule Group 1008 – Receiving, Acting Upon, and Ending Radio Transmissions
- Rule Group 1009 – Information That Must be copied

Purpose

When an authority or instruction is transmitted verbally by the Train Dispatcher, ensure the Train crew:

- Uses positive identification,
- Transmits the information is clear and accurate,
- Verifies that the authority or instruction by repeating correctly back by the Train Dispatcher and
- Information is copied correctly.

Preparation & Conditions

Observe the Train crew verbally transmitting information and receiving instruction or authority, or listen to historical tapes to verify that the Train crew used proper radio communication procedures and repeated back an understanding of the Train Dispatcher's instruction correctly.

Procedure

The preferred method is for the testing supervisor to observe the processes by:

- Listening during face-to-face observations,
- Monitoring the communication over the radio or
- A review of voice recording systems.

Events can be monitored real time or by use of historical records through replay functions.

Failure Defined

This is non-compliant when the:

- Train crew did not make positive identification,
- Information is not transmitted to the Train Dispatcher clearly and accurately or
- Information does not match the issued wording by the Train Dispatcher
- Train dispatcher does not detect the incorrect repetition.
 - Pay particular attention to numbers given to the Train Dispatcher.

Numbers must first be pronounced, then stated digit by digit, spelling of individual digits.

Observation Test 4: Drug and Alcohol Policy Compliance

Rules

Rule Group 106 – Drug and Alcohol (Rule G)

Purpose

This test is to determine that an employee is not under the influence of any drug, medication, prescription medication, or other substance that will in any way adversely affect the employee's alertness, coordination, reaction, response, or safety.

Preparation & Conditions

Only supervisors who have been qualified on the signs and symptoms of drug and alcohol may perform this test. If drug use is suspected, the supervisor must have a second qualified supervisor make a confirming observation. The officer may make this observation any time an employee is on duty or on CSX property.

Procedure

The officer should observe an employee for the signs and symptoms of being under the influence of any drugs, medication, or any other substance that would impair the employee's alertness, coordination, reaction, response or safety. Signs and symptoms include but are not limited to the following:

- Appearance
- Behavior
- Speech
- Body Odors

The officer should also ensure that the employee does not have in his or her possession any alcoholic beverages or intoxicants.

Failure Defined

This test is a failure when any of the following exist:

- The employee is in possession of alcoholic beverages or intoxicants
- The employee is under the influence of drugs, medication, or any other substance that would impair the employee's alertness, coordination, reaction, response, or safety.

Observation Test 5: Personal Electronic Device Compliance

Rules

- Rule Group 1000 – Use of Electronic and Electrical Devices, General Rules
- Rule Group 1001 – Use of Electronic and Electrical Devices on Locomotives
- Rule Group 1002 – Use of Electronic and Electrical Devices on or About Tracks

Purpose

This observation is to ensure employees do not use electronic devices in a manner that interferes with workplace safety. It determines that employees know and understand how, where and when they may use railroad supplied and personal electronic devices, other than railroad radios.

Preparation & Conditions

This observation can be conducted anytime employees are on duty working outside the office environment except if communicating or responding to an emergency.

Procedure

This can be performed by observing train service employees as they work, while riding in the cab of locomotives, or when receiving phone calls from employees on duty. A supervisor is prohibited from calling any crew member on their cellphone for the purpose of ascertaining compliance with this rule.

It is important to note, that railroad supplied and personal electronic devices may be used to respond to a railroad emergency. They may also be used if the radio has failed, but when this is done, the company must authorize use and all railroad radio rules apply.

Transportation Department

Personal electronic & electrical devices

Ensure employees only use the personal electronic and electrical devices for minimum personal voice communication when all the following conditions are met:

- Train is stopped
- If on ground, employee is located at least twenty-five (25) feet from the nearest rail.
- No crewmembers are riding equipment or on the ground during switching operation
- No person is engaged in the repair, fueling or other preparation of the train for movement, and
- Job briefing is conducted with crewmembers to ensure all agree the use is safe and will not interfere with workplace safety

If any of the above conditions are not met, the device is to be powered off, stored out of sight and not on a person.

Railroad supplied electronic or electrical devices

Ensure employees only use of railroad supplied electronic devices when all of the following conditions are met:

- Employee at the controls of a locomotive
 - Train is stopped
 - Employee is located at least twenty-five (25) feet from the nearest rail
 - No crewmembers are riding equipment or on the ground during switching operation
 - No person is engaged in the repair, fueling or other preparation of the train for movement, and
 - Job briefing is conducted with crewmembers to ensure all agree the use is safe and will not interfere with workplace safety
- Employee in the cab of controlling locomotive and not at the controls
 - Sterile cab is not required (See Operating Rule 503.14), and
 - Job briefing is conducted with crewmembers to ensure all agree the use is safe and will not interfere with workplace safety
- Employees not in cab of controlling locomotive and not at the controls
 - When on the ground, not fouling track or within four (4) feet of nearest rail, and
 - Job briefing is conducted with crewmembers to ensure all agree the use is safe and will not interfere with workplace safety

Engineering & Mechanical Departments

Personal electronic & electrical devices

Ensure employees only use the personal electronic and electrical devices for CSX business, are powered off and stored out of sight when:

- At the controls of moving on-track equipment except hi-rail trucks less than 10,001GVW, or
- Operating mechanized equipment, or
- Within a red-zone of on-track or mechanized equipment, or
- Located within four (4) feet of the nearest rail except when the appropriate protection for the type of worker has been established.

Employees operating on-track or mechanized equipment use of personal electronic & electrical devices

Ensure employees only use the personal electronic and electrical devices for minimum personal voice communication when all the following conditions are met:

- Not at the controls of moving equipment
- No member of the crew or work group is riding equipment or involved in switching operation
- Not engaging in repair, fueling or preparation of the equipment including cars or locomotives,
- Not within defined red-zone of mechanized equipment
- Not fouling track or otherwise located within four (4) feet of the nearest rail, and
- Job briefing is conducted with crewmembers to ensure all agree the use is safe and will not interfere with workplace safety

If any of the above conditions are not met, the device is to be powered off, stored out of sight and not on a person.

Failure Defined

This is non-compliant when:

- Any employee uses a personal electronic or electrical device when the work environment does not allow use.
- An employee uses a railroad supplied electronic or electrical device when the work environment does not allow use.

Operational Tests

Test 1: Hand operation of switches, crossovers and derails

Rules

Rule Group 401 – Operating Switches and Derails by Hand
Rule Group 2200 – Operating Switches and Derails

Purpose

Switches

This test determines that employees operate switches properly

Crossover Switches

This test determines that crew members follow the correct procedures when operating crossover switches, ensuring crossover switches correspond before passing over a crossover switch. This test may also be used to determine that crossover switches are left in the proper position when work is complete.

Derails

This test determines that employees properly apply and remove derails

Preparation & Conditions

Switches

This test can be conducted any time an employee is engaged in operating a switch

Crossover Switches

This test can be conducted any time a hand-operated crossover switch is used. Crossover switches may also be observed to ensure they were left in the proper position

Derails

This test can be conducted any time an employee is engaged in the activity of operating a derail or when observing that a derail has been previously used as long as the employee last operating the derail is known.

Procedure

Switches & Derails

The testing officer must observe the employee handling a hand throw switch.

- Before lining the switch or derail employees must ensure:
 - There are no conflicting movements
 - Any preceding movements have passed the clearance point
 - The device is not locked, clamped, spiked or tagged out of service
 - Orange locks are used by the Engineering Department and Blue locks are used for blue signal protection.
 - Only a person of the same class, craft, or group of employees who applied the lock can unlock a lock painted orange or blue.
 - If a lock is found to be defective or missing on a main track switch or derail that protects the main track, replace the lock if possible. If a lock is not available, report the missing or defective lock to the train dispatcher and be governed by his/her instructions.
 - No obstructions will interfere with normal movement of the switch points or handle
 - Use a broom, stick, or similar device to clear material from the switch point area
 - Never use hands or feet to remove foreign material from the switch point

- Employees must:
 - Face the device squarely
 - Firmly grasp the handle with both hands
 - Position themselves to prevent handle from striking them should it be under pressure
 - Use proper ergonomics for the device they are operating
- Employees must not:
 - Unlock or operate a switch or derail that provides access to a controlled track unless authorized by the train dispatcher or signal indication.
 - Line a switch for a diverging movement for another train until contacting the approaching train and confirming
 - Train intends to make the diverging movement
 - Crew understands the switch will be lined for the diverging movement and
 - Train will approach the switch prepared to stop
 - Operate a switch or derail that has been determined to be defective or is difficult to operate
 - If found defective or difficult to operate report the device and tag as defective
- After operating a switch or derail, the employee must make certain:
 - The switch is properly lined for the intended movement
 - The switch points fit properly
 - Target, if equipped, corresponded
 - Lever is latched
 - If equipped with a lock, device is locked before being left unattended
- Restoring switches or derails on controlled track:
 - Restore switches on controlled tracks to their normal positions before the movement is reported clear to the train dispatcher or a signal to proceed is given to another train
 - Employee who restores a hand-operated main track switch to the normal position for the purpose of releasing an authority of reporting by a specific location where TWC-D rules are in effect must:
 - Remain at the switch until verbally confirming with each crew member the switch was restored and locked in normal position
 - Complete the SPAF in ink
 - Retain the SPAF until next tour of duty
- Normal positions:
 - Main tracks, signaled track, or sidings – for movement on those tracks
 - Scale track – movement away from the scales
 - Other than main track, signal track, or siding – there is no normal position
 - Derails – In the derailing position

Crossover Switches

- Properly line both switches of a crossover for the movement before a train fouls the crossover. If the switch at one end of the crossover is changed, properly line the switch at the other end of the crossover to avoid a conflicting route except when necessary for an employee to establish blue signal protection
- Complete the movement through a crossover before either switch is changed from a corresponding position, except when one crew is using both tracks connected by the crossover during continuous switching operations
- Normal Positions:
 - Main track, signal track or sidings – for straight away movement
 - Other than main track, signal track, or siding – must be in a corresponding position with both switches lined for the crossover movement or both switches lined for straight away movement

Failure Defined

A failure is defined as follows:

- Switches and Derails:
 - Employee does not clear switch point properly
 - Employee does not properly operate switch using proper body mechanics
 - Employee lines switch for opposite movement while equipment is fouling the switch
 - Employee does not check the switch points to ensure proper position
 - Employee unlocks or operates a main track switch without permission
 - Employee fails to leave the switch or derail in the normal position if there is one
 - Employee fails to complete or retain a SPAF when necessary
- Crossover switches:
 - Employees fail to properly line both switches of a crossover for movement before the train fouls the crossover
 - Employee fails to return switches to their normal position

Test 2: Protection of shoving or pushing movements

Rules

- Rule Group 406 – Shoving or pushing equipment
- Rule Group 609 – Shoving rules for Dispatchers
- Rule 314.5 – Shoving over a crossing
- Rule 305.3 – Shoving in Working limits

Purpose

- May be conducted
 - On employees that are engaged in shoving or pushing movements and have not been relieved of providing visual protection
 - When employees other than the crew protect the shove using technological means (cameras, monitors, etc.)
- Designed to ensure compliance with the requirement to provide protection while shoving.
- Will establish proper communication has taken place before and during the movement

Preparation & Conditions

The engineer and the employees directing the shoving movement must have conducted a job briefing to ensure:

- The locomotive operator knows who is directing the move
- The type of communication to be used
- How protection will be provided
- The position of the switches and/or derails involved in the movement
- Identify the track on which the equipment will be shoved.

Procedure

The officer conducting the test must be in a position to directly observe the movement being protected and ensure that the employee is not engaged in unrelated tasks.

When testing an employee providing protection via technological means the officer must be in a location to observe the employee during the movement and determine a job briefing with the locomotive operator has been conducted.

Shoving Movements

Employee protecting the shove must ensure the route is properly lined, and protection is provided by:

- Riding the lead end of the movement, or
- Being in a position to visually determine that the track is clear and maintain visual contact with a portion of the equipment
- Provide instructions to the locomotive operator as necessary (i.e. car counts)
- Must not engage in any unrelated tasks

When technological means are being used

- The employee using the technology must be trained on the equipment being used
- The track must be determined to be clear
- Switches and derails must be properly lined
- Employee must not be engaged in any unrelated tasks

When a movement must stop

- If a radio is being used to communicate to the locomotive operator, movement must stop within one half the range of vision, if no other instructions are given movement must stop
- If hand signals are being used to communicate to the locomotive operator, if hand signals are no longer given or visible, movement must stop.

Shoving of Highway Rail Crossings at Grade

Equipment must not be shoved over a crossing at grade unless:

- The crossing is protected by an employee on the ground
- It is a private crossing located within a CSX yard and traffic is stopped or there is no traffic approaching
- The crossing is equipped with properly functioning gates that are in the fully lowered position before fouling the crossing

Failure Defined

This test is a failure when any of the following exist:

- Employees fail to conduct a job briefing prior to initiating the shove
- Employee fails to provide proper protection
- Locomotive Operator moves prior to distance being given by employee protecting the movement
- Locomotive Operator fails to stop the movement within one-half the distance of the last radio
- Employee protecting shove fails to give proper distance
- Employee protecting shove engages in unrelated tasks

Test 3: Equipment clear of adjacent tracks

Rules

Rule Group 407 – Leaving Equipment in the Clear

Purpose

This test is used to determine compliance with the requirement to leave equipment where it will not foul other tracks or cause injury to employees riding on the side of equipment.

Preparation & Conditions

This test may be conducted any time equipment is left unattended. It may be done while observing crews where cars have been set out or left secured. If a violation is evident the crew must be stopped and corrective action taken.

This test may also be done after the equipment has been left. If the equipment is found to be left in the foul, the employees last handling the equipment must be determined and corrective action must be taken.

Procedure

Equipment must not be left beyond the clearance point when it is indicated. When there is no indication of the clearance point, the clearance point must be determined by the employee using the following procedure:

1. Standing outside the rail of the connecting track
2. Extending arm toward the equipment
3. Identify the location where the equipment can no longer be touched,
4. Position equipment an additional 50-foot car length into the track from the location identified in step 3.

When the track length is not sufficient to permit leaving equipment clear of connecting tracks and it is necessary to leave equipment beyond the clearance point, the equipment must completely occupy the switch of the connecting track.

Failure Defined

The test is a failure when

- Equipment is left in the foul of connecting tracks.
- It was necessary to leave the equipment fouling the connecting and the equipment did not occupy the switch.

Test 4: Securement of unattended equipment

Rules

- Rule Group 408 – General Securement Requirements
- Rule Group 409 – Securement of Cars
- Rule Group 410 – Securement of Locomotives
- Rule Group 411 – Securement of Trains
- Rule Group 412 – Securement of Key Trains
- Rule Group 2104 – Operating Hand Brakes

Purpose

The purpose of this test is to ensure equipment left unattended is properly secured.

Preparation & Conditions

This test may be conducted under the following conditions

- Locomotives
 - After observing an engineer securing a locomotive
 - Locomotive(s) that are discovered left unattended by employees
- Trains
 - It is known the train will be left unattended
 - This test may be performed after the crew has departed the train
- Cars
 - When cars are detached and left standing with/without being attached to a source of air

Procedure

Securement of Locomotives

When a single locomotive or locomotive consist not attached to cars is to be left unattended

- Fully apply the independent brake before applying the hand brake
- Apply and test hand brakes on the required number of locomotives
 - Left outside a locomotive service facility - Each locomotive equipped with a hand brake
 - Left inside a locomotive service facility – A minimum of one locomotive
- After applying the required number of hand brakes
 - Release the independent and automatic brakes allowing four seconds per locomotive
 - Observe the consist for one additional minute with the air brakes released
 - Note: If movement occurs the hand brakes are not sufficient
- Locomotive switches and levers on a single or the controlling locomotive must be properly positioned
- Before leaving locomotives unattended, doors must be locked unless
 - Unequipped with locks or the lock is defective
 - The defect must be reported to the train dispatcher or yardmaster and the CSX Mechanical Desk
 - Record the condition on the locomotive work report
 - Remove the reverser and place in a locomotive that will be locked or keep the reverser in his/her possession
 - In a yard where a supervisor is continuously on duty
 - On a track where employees regularly inspect, test, repair, fuel, or service cars or locomotives

Securement of Trains

When necessary to leave a train unattended with cars and locomotives attached

- Properly secure cars
- Properly position switches and levers of controlling locomotives
- Apply hand brakes on each locomotive in the consist equipped with a hand brake
 - If DP locomotives are located within the body of a train or at the rear, the DP locomotive must be in “SET OUT” mode. It is not necessary to secure the locomotive hand brakes on the DP locomotives
 - If DP locomotives are part of the lead consist of locomotives, DP locomotives must be secured in accordance with locomotive securement rules
- Securement of Key Trains
 - Key trains must not be left unattended on a controlled track outside of a yard or terminal unless the location is authorized in special instructions or permission is received from the train dispatcher.
 - If permitted to leave a Key train unattended on a controlled track outside of a yard or terminal, it must be properly secured and the train crew must provide the following to the train dispatcher:
 - Milepost location of both ends of the train
 - Length of the train, tonnage, type of train, number of cars and number locomotives
 - Number of hand brakes applied and tested on the cars and applied on the locomotives
 - Track features and grade
 - Current weather conditions
 - Name of employee
 - When leaving a key train
 - Remove the reverser from the controlling locomotive
 - Keep the reverser in his/her possession
 - Return the reverser to the proper storage location at the

Securement of Cars

When leaving cars unattended:

- Before applying hand brakes to the cars
 - Bunch slack when applying on the low end of a grade and stretch slack when applying on the high end
 - Fully apply independent brake
 - Make a full service application of the automatic brake
- Must be secured with a sufficient number of tested hand brakes, but not less than one. In yards where skates or retarders are in use, those devices will be used in place of hand brakes
- When applying the required number of hand brakes
 - Verify hand brake chains are tight
 - Instruct the locomotive operator to release the independent brake and automatic brakes
 - Verify the brake shoes on the B end of cars are against the wheels of cars with hand brakes applied
- Test that hand brakes are sufficient to hold the equipment
- Before cutting away from cars connected to air
 - Make a full service brake pipe reduction
 - Verify that the brake pipe exhaust stops before closing the angle cock
 - Ensure the angle cock is open on the equipment

Operating Hand Brakes

When operating Hand Brakes:

- Keeps hands, arms, other body parts, and clothing clear of moving parts.
- Do not operate a vertical wheel hand brake from the ground unless:
 - Mounted on the side of the car
 - There is no brake platform directly below the hand brake
 - On Flat cars not equipped with hand hold that allows an upright position
- Maintains three points of contact, proper hand and foot position if on the equipment
- Ensures release levers or pawls are in the correct position
- Places right hand at approximately the 7 o'clock position on vertical wheel hand brakes to apply pressure with short pulls while applying in a clockwise direction
- Places right hand at approximately the 1 o'clock position on vertical wheel hand brakes to apply pressure with short pulls while releasing in a counterclockwise direction if not equipped with quick release lever
- Keeps back straight and uses legs to push and right hand to pull while applying pressure
- Maintains secure footing while operating side-mounted ratchet hand brakes from the ground

Failure Defined

Failure of this test is defined by the following

- Locomotives
 - The hand brakes have not been applied to the required number of locomotives
 - Locomotive levers and switches are not in the proper position
 - The locomotive cab doors have not been properly locked
 - If the cab doors have not been locked due to a defective lock and the condition has not been properly reported
 - The reverser has not been removed from the locomotive
- Trains
 - Cars have not been properly secured
 - Locomotives have not been properly secured
 - Locomotives have not been properly locked
 - Key Trains
 - On Controlled Track - Required information has not been transmitted to the train dispatcher
- Cars
 - Slack has not been properly adjusted according to the grade
 - Sufficient number of hand brakes have not been applied and tested when required
 - Hand brakes have not been properly applied
 - Cars connected to air have not been left appropriately
 - Cars left unattended with brake pipe not vented to atmosphere (Bottled)
- Operating Hand Brakes
 - Does not keep hands, arms, other body parts and clothing clear of moving parts
 - Operates hand brake from the ground unless allowed by exception
 - Doesn't maintain three points of contact, proper hand and foot position
 - Does not use proper techniques for applying and releasing hand brakes
 - Doesn't keep back straight and use legs while applying pressure to hand brakes
 - Does not maintain secure footing while operating side-mounted ratchet style hand brakes from the ground

Test 5: Main track authority

Rules

- Rule Group 503 – Main, Signaled, and Siding Tracks
- Rule Group 504 – General Signal Rules
- Rule Group 505 - Track Warrant Control Non-Signaled (TWC-D)
- Rule Group 506 – Track Warrant Control with Automatic Block Signals (TWC-ABS)
- Rule Group 507 – Main Track Yard Limits Non-Signaled (YL)
- Rule Group 508 – Main Track Yard Limits Signaled (YL-S)
- Rule Group 509 – Current of Traffic (COT) – Track Signaled in One Direction
- Rule Group 510 – Traffic Control (TC)
- Rule Group 511 – Controlled Point (CP) Signals
- Rule Group 512 – Cab Signals System (CSS) - General

Purpose

The purpose of this test is to determine if the train or engine has received the proper authority to occupy the main track.

Preparation & Conditions

This test may be conducted on main track where authority to occupy the track is required.

Procedure

In TWC-D, TWC-ABS territory, and Current of Traffic (COT) (when moving against the current of traffic) the train or engine must have authority from the dispatcher to occupy the track.

In Main track yard limits (YL-S), Current of Traffic (COT) (when moving with the current of traffic), Traffic Control (TC), Control Point (CP), and Cab Signals (CSS) the train or engine must have authority from a signal to occupy the track

Failure Defined

Failure is defined as a train or engine not having the proper authority to occupy the track they are operating on.

If the train does not have the proper authority to occupy the track, the movement must be stopped immediately.

Test 6: Stop – Hand/Wayside Sign/Work Zone

Rules

Rule 202.2

Rule 302.1

Rule 304.7

Rules 305.2, 305.3, 305.8, & 305.9

Purpose

The purpose of this test is to ensure that employees are complying with conditions that require them to stop.

Preparation & Conditions

This test can be performed any time there is a condition that would require a train or piece of equipment to stop.

Procedure

Hand Signals

Give a hand signal requiring stop by doing one of the following:

- Swing at a right angle to the track
- Any object waved violently by anyone on or near the track

Locations that must be approached prepared to stop

- Unless the location is equipped with signals, trains must approach the end of two or more tracks, junctions, drawbridges, and railroad crossings at grade prepared to stop until it has been visually determined that:
 - Switches, if equipped, are properly lined, and
 - Track is clear

Wayside Signs

- Trains encountering wayside signs not covered by a dispatcher message or Form EC-1 instruction that are displayed next to the track on which the train is operating must:
 - Warning Sign – Proceed prepared to stop in two miles and promptly report the occurrence to the train dispatcher. If no conditional stop sign or Temporary Reduce Speed sign is encountered in two miles, train must operate at restricted speed for an additional mile
 - Conditional Stop Sign – Stop the train immediately, contact the train dispatcher and be governed by his or her instructions

Work Zone

Train must not enter or make an initial movement within an active work zone unless granted permission by the employee in charge. A train that stops within the limits of an active work zone must notify the employee in charge and not make further movement until granted permission.

Failure Defined

The test has been failed when an employee encounters

- A hand signal that indicates stop and fails to stop
- The end of two or more tracks, junctions, drawbridges or railroad crossings at grade where the switches are not properly lined or the track is not clear and fails to stop
- A wayside sign indicating the need to stop and fails to stop
- Train enters or makes initial movement within an active work zone without the permission of the employee in charge.
- Train stops within an active work zone and fails to notify the employee in charge
- Train stops within an active work zone and then continues movement without the permission of the employee in charge.

Test 7: Riding/mounting/dismounting equipment

Rules

Rule Group 2101 – Mounting, Dismounting, and Crossing Over Equipment

Rule Group 2102 – Riding Equipment

Purpose

This test is designed to determine that the employee is in compliance with the requirements for riding, mounting, dismounting and crossing over equipment.

Preparation & Conditions

The test can be conducted at any location that the employee is required to ride, mount, dismount or crossover equipment.

Procedure

The testing officer will observe trained and qualified employees riding, mounting and dismounting equipment to ensure requirements are being met.

When mounting, dismounting or crossing over equipment, employees must:

- Use locomotive steps and car side ladders
- Scan the area and equipment for hazards
- Mount and dismount clear of switches, derails, bridge approaches, close clearances, or any object that could cause a slip, trip or fall;
- Face the equipment
- Maintain three points of contact;
- Place the defined heel of the boot against the ladder rungs and brace feet against the side rails;
- Keep clear of adjacent tracks;
- Stop at the bottom step or ladder rung to check for solid footing before dismounting,
- May mount or dismount moving equipment at a walking pace not to exceed 4 mph except in case of emergency.

Mounting moving equipment, employee must:

- Face the approaching equipment,
- Mount the:
 - Leading end of a car, or
 - Trailing end of a single car or rear car of a cut of cars, or
 - Leading or trailing end of a locomotive
- Grasp hand holds with both hands and step into the stirrup or onto the step first with your trailing foot (relative to the direction of the movement) in sync with the movement then the other foot,
- Verbally communicate to the locomotive operator that you have safely mounted the equipment.

Dismounting moving equipment, employee must:

- Select a safe location to dismount well in advance,
- Face the direction of movement,
- Focus on the selected location and scan for hazards just prior to dismounting,
- Drop trailing foot (relative to the direction of movement) from the stirrup or step,
- Lower trailing foot to the ground with your toes in the direction of movement,
- Step away with the leading foot and release your lead hand,
- Maintain a grip on the hand hold with your trailing hand until your feet are balanced and moving in sync with equipment.

When mounting, dismounting or crossing over equipment, employees must not:

- Have in his or her possession any grip/bag or other item that would prevent the full use of both hands, or
- Step from one car to another, or
- Cross under equipment, or
- Jump from equipment or structure to ground level except in an emergency, or
- Mount or dismount a moving tank car or mount or dismount any equipment if the equipment is moving too fast, or
- Step on or use a hand hold:
 - Any part of the hand brake, or
 - Cut lever, or
 - Angle cock, or
 - Coupler, or
 - Components of a cushion underframe or sliding center sill.

Crossing over equipment, employees must:

- Apply the appropriate protection,
- Ensure the equipment is secured against unintentional movement, and
- Only cross over equipment that:
 - Has sufficient hand holds to allow three points of contact, or
 - Is the B-End of an intermodal well car (double stack) maintaining three points of contact and using short deliberate steps.

Trained and qualified Engineering employees mounting or dismounting Plasser BDS unit, Plasser DYNA CAT and a Plasser 2X must:

- Mount or dismount moving equipment not to exceed 2 mph except in case of an emergency.
- Choose a location that provides solid footing and is free of any condition or object that could cause a slip, trip or fall.
- Verbally communicate the intent to mount or dismount moving equipment to the machine operator; and
- Receive verbal confirmation from the machine operator that the equipment will operate in work mode and not exceed 2 mph at the mounting/dismounting location.

When riding equipment employees must:

- Position body to face the equipment and look in the direction of travel,
- Maintain 3-points of contact, keeping secure hand holds and footing,
- Be prepared for unexpected movements and slack action at all times,
- Ride the side of cars equipped with a horizontal grab iron at least 12 inches above the floor of the car or at least one vertical grab iron that allow an employee to stand upright on the top or platform.
- Ride the side of rail cars or the trailing end of a cut of cars equipped with an end platform.
- Ride the steps or front/rear locomotive platforms when positioned on the outside of moving locomotive, and
- Dismount before passing a close clearance sign or reaching a close clearance.

When riding on equipment, employees must not:

- Place hands, arms, or legs inside equipment with shiftable loads or near the end gates of drop end gondola; or
- Occupy side locomotive walkways above 4 MPH; or
- Use bridge plates or container brackets as hand holds on flat cars; or
- Ride:
 - Platform between coupled cars, or
 - End of cars being shoved unless the car is equipped with riding platform that has a safety rail positioned between the employee and the end of the equipment , or
 - Couplers, draw-heads cut levers, or cushion underframe devices, or
 - Bottom step of equipment when traversing highway-rail crossing at grade, or
 - The side of equipment that is adjacent to a main track or siding that is occupied with equipment.

When riding tank cars employees must:

- Ensure they have a firm hand hold that prevents unintentional movement and:
 - If only one vertical grab iron, ride with one foot in the stirrups and one foot on the end platform, or
 - If two vertical grab irons, ride with both feet in the stirrups, or
 - If the tank car is the rear car of a pulling movement, employees may ride the outer edge of the end platform.

Failure Defined

This test is a failure when any of the following exist:

- Employee mounts or dismounts moving equipment at speeds above walking speed exceeding 4 MPH unless in the case of an emergency.
- Employee does not use proper techniques when riding, mounting, dismounting or crossing over equipment.
- Employee occupies the side locomotive walkways above 4 MPH

Test 8: Going between and separating equipment

Rules

Rule Group 414 – Fouling Equipment

Rule 2019.3

Rule 2100.1

Rule 2100.3

Purpose

The purpose of this test is to ensure employees are using the proper procedure when going between equipment.

Preparation & Conditions

This test can be performed any time employees go between equipment excluding when:

- Blue Signal Protection is Required
- Operating a bleed rod or cut lever
- Operating a side mounted hand brake
- A transportation employee stationed at an EOT of his or her train for the purpose of performing a brake test

Procedure

Fouling Equipment

Employees must not foul equipment:

- Without the proper protection for the job classification.
- Not coupled to a locomotive or coupled to a locomotive that is not under the control of a locomotive operator until known the equipment is secured and will not be coupled to.

Before fouling equipment coupled to a locomotive that is under the control of a locomotive operator, the employee who will foul the equipment must:

- Request protection from the locomotive operator
- Receive confirmation that the protection has been provided

To provide protection

- With a conventional locomotive:
 - Center the reverser
 - Place the generator field in “OFF”
 - Fully apply the independent brake and make a sufficient application of the automatic brake
 - Inform the requesting person that protection has been provided
 - Maintain the protection until notified by the requesting employee that the protection may be removed

- With a remote control locomotive:
 - Place the speed selector to STOP
 - Place the direction toggle switch to NEUTRAL
 - If necessary, make a full service brake application
 - Keep OCU properly attached and worn on the OCU vest
 - Maintain the protection until notified by the requesting employee that the protection may be removed.

After protection has been established

- Other employees may foul the equipment after holding a job briefing with the employee who requested the protection
- The protection may only be released by the requesting employee who must verify that any other employees protected are clear of the equipment before it is released

Locomotive Operations in conventional service may foul the locomotives after the following conditions are met:

- Independent brake is fully applied and a sufficient automatic brake application is made
- Generator field is in the OFF position
- Reverser is removed and kept in the possession of the locomotive operator
- Other members of the same crew may foul the equipment to assist the locomotive operator after a job briefing has been held

Working on or about tracks

When working on or about tracks employees must be alert for unsecured or shifted lading and movement of cars, locomotive, or equipment at any time, in either direction on any track. Employees must not:

- Cross within 25 feet of the end of standing equipment unless protection has been provided
- Cross between standing equipment separated by less than 50 feet except a mechanical employee working inside a mechanical facility or track with blue flag protection established

Uncoupling air hoses

Whenever possible, allow the movement of equipment to uncouple air hoses. If air hoses between equipment must be uncoupled by hand, employees must:

- Close both angle cocks
- Use both hands to firmly grasp the closest air hose immediately behind the glad hand
- Brace hands against a leg to prevent uncontrolled movement of the air hose
- Raise the air hose until it separates from the other hose

Failure Defined

Failure of this test occurs when:

- Employee fouling the equipment does not request and receive proper protection
- Locomotive Operator does not properly apply protection
- Other employees foul the equipment without holding a job briefing with the employee that requested the protection
- Protection is released by someone other than the requesting employee
- Employee crosses within 25 feet of standing equipment without proper protection
- Employee crosses within 50 feet of separated equipment
- Employee does not use the proper procedure to uncouple the air hose

Test 9: Required brake tests

Rules

Rule Group 5201 – Inspection of Brake Equipment
Rule Group 5202 – Methods for Testing Brake Pipe Leakage
Rule Group 5203 – Class I Brake Test
Rule Group 5204 – Class III Brake Test
Rule Group 5205 – Transfer Test
Rule Group 5206 – Helper Brake Test
Rule Group 5207 – Class IA Air Brake Test
Rule Group 5208 – Additional Inspections
Rule Group 5209 – Air Brake Test Procedures

Purpose

This test determines the following:

- Class I Brake Test – The required brake test has been performed on any originating train or on cars that have not been pretested and are added to the train at locations other than the train's originating location.
- Class III Brake Test – The brake test has been performed at locations where required
- Transfer Brake Test – The brake test has been properly performed where required
- Helper Brake Test – The brake test is performed any time a helper locomotive is added to a train
- Class IA Air Brake Test – The brake test is performed at points designated in special instructions
- Additional Inspections – The additional inspections of the locomotive have been properly performed

Preparation & Conditions

Class I Brake Test

The testing officer must be in a location where

- A train is originally assembled
- At the train's point of origin (except when received at interchange)
- When the train has been off air more than four hours
- When adding or removing more than one solid block of cars
- When a unit or cycle train designated in special instructions has traveled 3,000 miles since the last Class I
- By a qualified mechanical inspector at destination, when an extended haul train is designated in special instructions and has traveled 1,500 miles.

The testing officer must be in a position to observe the brake test being performed

Class III Brake Test

The testing officer must be in a location other than the originating terminal when cars have not been off air more than four hours

- Class III Train Line Continuity test is to be performed when the train has been separated and recoupled without any change to the train's consist
- Train Consist Change test is to be performed when
 - A locomotive or caboose is changed
 - A car or solid block of cars is removed from the train
 - At locations other than the train's initial terminal and cars added from a previous train have remained coupled in same order with the train line remaining connected unless
 - Removing defective equipment from the solid block
 - Separated into multiple blocks due to track constraints and the cars will be recoupled in the same order as removed.

The testing officer must be in position to observe the employees performing the brake test.

Transfer Brake Test

The testing officer must be in a location where

- Cars have not been previously tested when making a train movement
- The movement will not exceed 20 miles

Helper Brake Test

The testing officer must be in a location to observe a brake test being performed when a helper locomotive is attached to an existing train.

Class IA Brake Test

The testing officer must be in a location to observe the brake test. This test may only be conducted where applicable as designated in Special Instructions.

Additional Inspections

The officer must be in a location to observe the additional inspections required when performing a brake test.

Procedure

Prior to performing a brake test the brake equipment must be inspected by checking for the following:

- Air hoses are in serviceable condition and properly coupled
- The regulating valve is adjusted to the standard pressure for the train being tested
- Angle cocks, end cocks, and cutout cocks are properly positioned
- If the train is equipment with electro-pneumatic brakes, brake circuit cables are properly connected

Test the brake pipe leakage either using the Air Flow Method or making a Brake Pipe Leakage Test. If the leakage test reveals air flow is greater than 60 CFM or exceeds 5 PSI per minute:

- Notify employee inspecting cars
- Inspect the brake pipe for leaks
- Make necessary repairs
- Retest

The brake pipe leakage information must be properly recorded on the brake test certificate.

Class I Brake Test

The following must be done when performing a Class I Brake Test:

- Safety Inspection
- Charge brake pipe within 15 PSI of regulating valve setting
- Obtain required signal to begin test
- Leakage Test
- 20 PSI Brake Reduction
- Brake application on all cars
 - Brake application on Rear car when using an air source other than the outbound locomotive
- Release the brakes on all cars
 - Release brake on rear car when using an air source other than the outbound locomotive
- Brake pipe must be restored on rear as indicated by gauge

Class III Brake Test

The following must be done when a Train line Continuity test is performed:

- Brake pipe restored on rear as indicated by gauge

The following must be done when a Train Consist Change test is performed:

- Safety Inspection
- Charge brake pipe to within 15 PSI of regulating valve setting
- 20 PSI Brake Pipe Reduction
- Brake Application and inspection on the rear car
- Release brakes on rear car
- Brake pipe restored on rear as indicated by gauge

Transfer Brake Test

The following must be done when a Transfer Brake Test is performed:

- Safety Inspection
- Charge brake pipe to within 15 PSI of regulating valve setting
- 20 PSI Brake Pipe Reduction
- Brake application on all cars

Helper Brake Test

The following must be done when a Helper Brake Test is performed:

- If train brake is already applied make an addition 10 PSI brake pipe reduction
- Brake application on rear car or helper locomotives with visual inspection on each helper locomotive that brake system operates from a 20 PSI reduction initiated from controlling locomotive
- Release brakes on rear car or helper locomotive at the rear of the train

Class IA Brake Test

The following must be done when a Class IA Brake test is performed:

- Safety Inspection
- Charge brake pipe to within 15 PSI of regulating valve setting
- Obtain required signal to begin test
- Leakage Test
- 20 PSI brake pipe reduction
- Brake application and inspection on rear car
- Release brakes on rear car
- Brake pipe restored on rear as indicated by gauge

Additional Inspections

The following must be inspected when performing a brake test:

- Air brake cylinder piston travel is correct when determined to be
 - 6-9 inches on body mounted brakes
 - A maximum of 6 inches on truck-mounted brakes
 - As specified by the badge plate of the car
- Brake rigging does not bind or foul
- Brake equipment is properly secured
- Retaining valves are in the EXHAUST position
- Retaining valve pipes are in serviceable condition
- Both sides of the car are examined during the inspection process to observe the functioning of all moving parts of the brake system

Failure Defined

Failure occurs when:

- The proper pre-test inspections are not performed
- The proper brake test is not performed when required
- The required steps are not completed appropriately
- The additional locomotive inspections are not performed

Test 10: Kicking cars

Rules

- Rule 314.5 – Providing Protection at Highway-Rail Crossings at Grade
- Rule 405.6 – Switching Equipment
- Rule 5904.1(B) – Remote Control Operations

Purpose

This test is to determine if employees who are cutting cars off in motion (“Kicking Cars”) are complying with safety procedures.

Preparation & Conditions

This test can be conducted at any location where kicking cars is performed and while employees are engaged in the process of kicking cars. The testing officer must reference the special instructions for the location to determine additional safety requirements are applicable.

Procedure

The testing officer will observe employees engaged in the kicking car process and monitor the crew’s radio communications to ensure requirement are met. Observe and listen to crews perform the following activities:

- Employee(s) are not fouling equipment prior to giving the signal to move
- Locomotive is pushing with slack bunched when the uncoupling lever is pulled
- No more than 3 cars are kicked at one time unless all empties, then 4 may be kicked
- Ensure that cars are released at a speed not to endanger employees, equipment or contents
- Signal to stop is given when desired speed is reached
- Adjacent tracks are properly clear of equipment
- Grade crossing is protected properly
- RCO operators have selected the COUPLE speed setting and selected 7 or 10 MPH when initialing a movement from stop
- Special instructions, if any, are followed

Failure Defined

This test is a failure when the following is observed during kicking cars:

- Employee fouling equipment prior to giving a signal to move
- Cars are cut when locomotive(s) is pulling cars
- Employee holding on to coupling lever when train speed is 5 mph or more
- Kicking more cars than allowed (3 at a time unless all are empty, then 4 may be kicked)
- Kick cars when adjacent track are not clear of equipment
- Grade crossings are not protected properly
- RCO operators have not selected the COUPLE speed or selected the wrong MPH
- Special instructions are not complied with

Test 11: Train speed

Rules

Rule Group 300 – Authorized Train Speed

Purpose

This test is to determine the speed of trains are in accordance with the maximum allowable speeds for any give location.

Preparation & Conditions

The officer will determine the train or engine speed at selected locations using the Radar speedometer to ensure speeds are within the maximum allowable speed of any Rule, Special Instruction, Train documents, Dispatcher messages, Form EC-1's and/or Signal Indications.

Procedure

- **Train speeds are authorized by:**
 - Rules, or
 - Special Instructions, or
 - Train documents, or
 - Dispatcher messages, or
 - Form EC-1, or
 - Signal indications.
- **Authorized train speed**
 - Must not be exceeded,
 - Applies to the entire train unless otherwise specified,
 - Must be observed even if wayside signs are not displayed, and
 - Must be the lowest of the specified speeds if a conflict exists between authorized speeds.
- **Authorized train speed terms:**
 - Limited Speed: A speed not exceeding 45 MPH.
 - Medium Speed: A speed not exceeding 30 MPH.
 - Slow Speed: A speed not exceeding 15 MPH.
 - Restricted speed: A speed that permits stopping within one-half the range of vision. It also permits stopping short of a train, a car, on-track equipment, an obstruction, a Stop signal, a derail, or an improperly lined switch. It permits looking out for broken rail. It is not to exceed 15 MPH until the entire movement clears turnouts, crossovers, and power-operated switches; otherwise it does not exceed 20 MPH.
- **Trains using other than main track or signaled tracks** must move at a speed that permits stopping within one-half the range of vision, short of a train, a car, on-track equipment, an obstruction, a Stop signal, a derail, or an improperly lined switch and must exceed:
 - 25 MPH on non-signalized sidings: or
 - 15 MPH when moving to and from the main track, operating through hand-operated switches not equipped with a signal unless specified otherwise in special instructions; or
 - 10 MPH when not moving to or from the main track, operating through hand-operated switches unless specified otherwise in special instructions; or
 - 10 MPH on other than main tracks or signaled tracks unless specified otherwise in special instructions; or
 - 5 MPH within designated locomotive service track or car shop repair track areas.

- **Speeds that must not be exceeded:**
 - 70 MPH for passenger trains with multi-level auto-racks or auto frame equipment, or
 - 59 MPH for passenger trains operating within the limits of a signal suspension or against the current of traffic, or
 - 49 MPH for freight trains operating within the limits of a signal suspension or against current of traffic, or
 - Restricted speed for 15 minutes for trains that encounter an unattended burning fusee near the track, unless the fusee is beyond the first rail of an adjacent track.

Failure Defined

This test is a failure when any of the following exist:

- Train exceeded Limited, Medium, Slow or Restricted speed
- Train exceeded maximum allowable speed on non-signaled sidings, when moving to and from main track, operating over hand-operated switches, other than main tracks, signaled tracks that were not specified with special instructions.
- Train exceeded speed in designated locomotive service track or car shop track areas.
- Passenger train exceeded maximum speed allowed while operating within the limits of a signal suspension and/or while operating with multi-level auto-rack or auto frame equipment.
- Freight train exceeded maximum speed allowable while operating with the limits of a signal suspension, against current of traffic and/or while encountering unattended burning fusee

Test 12: Banner

Rules

Rule 300.4
Rule 504.5
Rule 504.22
Rule 508.3
Rule 612.4
Rule 712.17

Purpose

The purpose of this test is ensure employees are operating equipment at a speed that will allow for stopping within one half the range of vision.

Preparation & Conditions

This test can be conducted any time employees are:

- Operating on non-controlled track
- Operating on controlled track where restricted speed must be observed

Tools required:

- Company approved simulated obstruction device (BANNER)

Procedure

When operating on non-controlled track:

- The banner can be set up anywhere that is at or beyond half the range of vision.
- Testing officer must be in a position to observe the crew operating at restricted speed to stop short of the banner

When operating on controlled track:

- With an intermediate signal
 - Place shunts on the track to produce a restricting signal
 - The intermediate should not be the first signal beyond a control point without a discussion with the train dispatcher
 - Place banner in a position beyond the restricting signal
 - The testing officer must be in a position to observe the crew operating at restricted speed to stop short of the banner
- With a controlled siding
 - Confirm with the dispatcher the train will be entering the siding
 - Place banner in a position beyond the signal within the siding
 - The testing officer must be in a position to observe the crew operating at restricted speed to stop short of the banner
- When passing a stop signal
 - Train must have a stop signal at the control point
 - The train dispatcher must give the crew permission to pass the stop signal at restricted speed
 - Place banner in a position beyond the stop signal
 - The testing officer must be in a position to observe the crew operating at restricted speed to stop short of the banner

Failure Defined

Failure occurs when:

- The banner is struck by the equipment
- The equipment is traveling at a speed greater than allowed by the restricted speed definition

Test 13: Approach & Stop signal

Rules

Rule 1285
Rule C1285
Rule CR1285
Rule 1292
Rule C1292
Rule CR1292
Rule 504.20
Rule 504.21
Rule 504.22
Rule 504.23

Purpose

The purpose of this test is to ensure that train crews are properly complying with approach and stop signal indications and any speed restrictions the indication would require.

Preparation & Conditions

This test can be conducted any time a train is operating in signaled territory and there is an approach followed by a stop signal.

Procedure

When passing an approach signal:

- Train must proceed prepared to stop at the next signal.
- Trains exceeding medium speed must immediately begin reduction to Medium speed as soon as the locomotive passes the approach signal

Trains approaching a stop signal must stop before any part of the movement passes the signal.

If a train passes a stop signal without permission:

- Notify the train dispatcher
- Provide warning against approaching trains

To pass a stop signal:

- A train must have permission of the train dispatcher
- The conductor or Locomotive Operator must contact the train dispatcher and follow instructions.
- A stop signal may be passed at restricted speed without permission of the train dispatcher when necessary to recouple to own train located immediately beyond the signal and no power operated switches are involved

After permission has been confirmed, the train must operate at restricted speed until the entire train has cleared all control point switches or spring switches and the leading wheels have:

- Passed a more favorable fixed signal
- Entered non-signaled territory
- If in cab signal territory, trains with operative cab signals must not increase their speed until they have run one train length or 500 feet (whichever distance is greater) past a location where a more favorable cab signal was received.

When a train is stopped at a Stop Signal at a remotely controlled railroad crossing at grade and the train dispatcher has control of the intersecting line, the train must receive permission to pass the stop indication.

Failure Defined

The test has been failed if:

- The train operating at greater than medium speed does not immediately begin reduction to medium speed as soon as the locomotive passes the approach signal
- The train passes a stop signal without permission
- The train passes a stop signal at greater than restricted speed

Test 14: Switch point obstruction

Rules

Rule 401.2

Purpose

The purpose of this test is to ensure employees have properly checked the switch point for obstructions that would interfere with the normal movements of the switch point or handle prior to lining the switch.

Preparation & Conditions

This test can be performed any time a switch is going to be lined.

Tools needed for this test:

- Company approved switch point obstruction

Procedure

The testing officer should place simulated switch point obstruction card inside of the switch point. It should then be observed that the employee lining the switch checks the switch point to ensure there are no obstructions.

The test should stop when the employee discovers the simulated switch point obstruction card.

Failure Defined

The test is determined to be a failure when the employee fails to examine the switch and observe the switch point obstruction card.

Test 15: Main track switches

Rules

Rule 401.4

Rule 401.9

Rule 401.13

Rule 401.14

Purpose

The purpose of this test is to determine that employees operating switches on main track have used the correct procedures when operating the switch. It will also ensure that after the switch has been used it is left in the proper position. When operating in TWC-D territory this test will ensure the SPAF form has been completed correctly.

Preparation & Conditions

This test can be performed any time an employee operates a main track switch.

Procedure

It must be observed that the crew has authority to operate the switch prior to operating.

Prior to operating a main track switch, the employee must have:

- Verbal authority from the train dispatcher or
- Signal Indication

Once the switch has been utilized the switch should be observed to ensure it has been returned to the normal position.

On main track the normal position for

- Hand Operated switches is for movement on the main track
- Hand operated crossover switches is for the straight away movement

When operating in TWC-D territory the SPAF form must be completed.

The employee who restores a hand-operated main track switch to the normal position for the purpose of releasing an authority of reporting by a specific location where TWC-D rules are in effect must:

- Remain at the switch until verbally confirming with each crewmember the switch was restored and locked in normal position
- Complete the switch position awareness form (SPAF) in ink, and
- Retain the SPAF until the next tour of duty

Failure Defined

The test has been failed when:

- The crew fails to receive authority prior to operating the switch
- The employee operating the switch fails to restore the switch to the normal position after using the switch
- In TWC-D territory, the employee fails to verbally confirm with each crewmember the switch was restored and locked in normal position and complete the SPAF.

Test 16: Failure of highway-rail crossing automatic warning devices

Rules

Malfunction of Highway-Rail Crossing Warning System

- Rule 313.1

Providing Protection at Highway-Rail Crossings at Grade

- Rule 314.1
- Rule 314.2
- Rule 314.3

Purpose

This test is to verify the following:

- Train crews are reporting Automatic Warning Devices at highway-rail crossings that are not properly working
- Train crews are compliant with:
 - instructions,
 - reporting
 - protecting the malfunctioning Automatic Warning Devices.

Preparation & Conditions

The officer will observe train crews that work in the areas with highway-rail crossings that are equipped with Automatic Warning Devices.

Procedure

Malfunction of Highway-Rail Crossing Warning Systems

- The designated employee who receives a report of the malfunction of highway-rail crossing at grade warning systems must immediately take action to:
 - Determine the type of malfunction,
 - Provide for the appropriate alternate warning for the crossing,
 - Notify all trains, including those of other railroads, of the location and type of malfunction before any trains reach the location and
 - Notify the local law enforcement agency having jurisdiction over the crossing

Providing Protection at Highway-Rail Crossings at Grade

- A train that has a dispatcher message or Form EC-1 instruction indicating the malfunctions of the automatic warning devices at a highway-rail crossing at grade must comply with the speeds listed. These speeds are headend only.
 - **Special Instruction, Dispatcher Message, or Form EC-1 indicates Activation Failure:**
 - No flaggers/No police officer or communication cannot be established with flaggers or police officer: **STOP AND PROTECT crossing from the ground.**
 - Flagger for only one direction of traffic and communication is established confirming that protection has been provided: **PROCEED with caution not to exceed 15 MPH.**
 - Flaggers for each direction or police officer present and communication is established confirming that protection has been provided: **AUTHORIZED SPEED.**

- When protection by a crewmember from the ground is required at highway-rail crossings at grade:
 - Stop the movement before fouling the crossing,
 - Position a crewmember or appropriately equipped flagman on the ground to stop vehicular and pedestrian traffic,
 - Place a burning fusee on each side of the crossing when the automatic warning devices are not functioning properly or when notified by the dispatcher message or Form EC-1 of an activation failure,
 - Only make movements as directed by the person providing the protection,
 - Sound the required locomotive horn and bell signals even if the crossing is located inside a quiet zone, and
 - Maintain protection until the leading end of the movement covers the crossing.
- The employee responsible for providing protection from the ground at a highway-rail crossing at grade must not give:
 - A signal to proceed to pedestrian or vehicular traffic unless train movements are stopped or there is not train movement approaching the crossing,
 - A signal to proceed to a train unless all vehicular and pedestrian traffic is stopped, and
 - Hand signals instructing the train to proceed in a manner that could be misunderstood to apply to vehicular and pedestrian traffic.

Automatic warning devices of a highway-rail crossing at grade are not functioning properly when:

- Flashing lights are not actuated at least 20 seconds prior to the leading end of the movement reaching the crossing, or
- Crossing gates, if equipped are not in the fully lowered position before the leading end of the movement reaches the crossing

Failure Defined

This test is a failure when any of the following exist:

- Employee fails to report and or notify the malfunction to the proper authorities
- Employee fails to provide proper protection.

Test 17: Sounding locomotive horn & bell

Rules

Rule Group 203 – Locomotive Bell and Horn

Purpose

This test verifies that train crews observe all bell and/or horn requirements while:

- Approaching and passing public highway grade crossings
- Approaching and passing Roadway Workers and roadway maintenance machines
- Approaching tunnels, yard, and other points where railroad workers may be present
- Meeting and passing standing trains
- Approaching and passing passenger stations
- Warning people and/or animals on or near the track
- Proceeding or reversing movement after being stopped for at least one minute (excludes switching movements)
- Acknowledging any signal not otherwise provided for
- Running against the current of traffic

This test also verifies the train crew has observed and complied with a designated quiet zone.

Preparation & Conditions

This test can be conducted any time the following conditions occur:

- A train is approaching and passing over a public highway grade crossing
- A train is approaching and passing Roadway workers
- A train is approaching tunnels, yards, or other points where railroad workers may be present
- A train is meeting and passing another train
- A train has been stopped for at least one minute
- A train is running against the current of traffic

Procedure

To perform this test verify the proper horn sequence has been sounded or the locomotive bell has been rung for any condition that requires the use of the bell and/or horn to sound.

- When approaching a public highway grand crossing
 - When traveling less than 45 MPH the horn should sound for at least 15 seconds but no more than 20 seconds before the lead locomotive enters the crossing
 - When traveling greater than 45 MPH the horn should begin sounding not more than one-quarter mile in advance of the crossing, even if the duration is less than 15 seconds
- When approaching and passing roadway workers verify the proper horn sequence has been sounded
 - This includes roadway maintenance machines or high-rail equipment on an adjacent track
- Approaching tunnels, yards, or other points where railroad workers may be present
- Meeting and passing standing trains
- Approaching passenger stations
- Warning people and/or animals on or near the track
- Proceeding or reversing after being stopped for at least one minute (excludes switching moves)
- Acknowledging any signal not otherwise provided for
- When running against the current of traffic
 - Approaching locations where view may be obstructed
 - Approaching and passing passenger or freight trains

Failure Defined

Failure occurs when the following happens:

- Train crew fails to sound the horn for a condition that requires the sounding of the horn
 - The proper horn sequence is not sounded as defined by rule
- Train crew fails to ring the bell for a conditions that requires the bell to be rung
- Train crew fails to observe a quiet zone and sounds the horn when sounding the horn is prohibited.

Test 18: Headlight and auxiliary (ditch) lights

Rules

Rule Group 204 – Locomotive Lights
End of Train Marker
Rule 205.4

Purpose

This test is to certify that requirements for the headlight/auxiliary (ditch) lights are in compliance for safe operation of trains.

Preparation & Conditions

The officer must be in clear view of the headlight/auxiliary (ditch) lights and the end of the train marker.

Procedure

- Leading end of trains must display headlight on bright unless otherwise specified.
- Except when approaching and traversing highway-rail and/or pedestrian-rail crossing at grade, the headlight on the leading end of trains must be dimmed when:
 - Required to provide for the safety of employees, or
 - At yards where switching is being performed, or
 - Approaching passenger stations where stops are to be made, or
 - Standing behind a stopped train, or
 - Approaching and passing a locomotive consist on the head end and rear end of a train on an adjacent track, or
 - Using hand signals.

Headlight may be turned off when:

- Standing on a controlled track in a signaled territory, or
- Standing on a track other than a main track, or
- On the end of the locomotive coupled to cars.

If the headlight on leading end of a train fails en route, notify train dispatcher or yardmaster, and

- Provided the lead locomotive has two working auxiliary lights, the train may continue unrestricted to the next point where the headlight can be repaired, or
- If lead locomotive does not have two working auxiliary lights, the train must operate under the following conditions:
 - Display a white light on the leading end at night,
 - Ring bell continuously when moving,
 - Reduce train speed when necessary to ensure safety, and
 - Continue to the next point where it can be repaired.

Auxiliary lights

- When the leading end of the lead locomotive of a train is equipped with auxiliary lights, both auxiliary light must operate properly before departing the initial terminal. The auxiliary lights must be on when headlight is required to be on bright.
 - Must be turned off when stopped, or
 - May be turned off when vision is impaired by reflection from smoke, fog, or other condition and the train is not approaching or passing over a highway-rail crossing at grade.

If auxiliary lights fail en route, contact the train dispatcher or yardmaster, and

- If one light fails, continue unrestricted until the next calendar day inspection, or
- If both lights fail do not exceed 20 MPH over highway-rail crossing at grade and continue to the next location where repairs can be made.

The rear locomotive headlight on dim may be used as a marker for:

- A locomotive consist without cars, or
- A single locomotive, or
- A locomotive on the rear of the train.

Failure Defined

This test is a failure when any of the following exist:

- Headlight was dimmed while traversing highway-rail and/or pedestrian-rail crossing at grade.
- Headlight was not dimmed in yards where switching was being performed.
- Headlight was not dimmed when approaching passenger station where stops were to be made.
- Headlight was not dimmed when standing or behind a stopped train.
- Headlight was not dimmed when approaching and passing a locomotive consist on the head end and rear end of a train on an adjacent track.
- Headlight was not dimmed while hand signals were being used.
- The rear locomotive headlight was not on dim as a single locomotive, a locomotive consist without cars or the locomotive on the rear of the train.
- Exceeded 20 MPH over highway-rail crossing at grade when the leading end of the lead locomotive was not equipped with ditch lights.

Test 19: Mandatory directives

Rules

Rule Group 1009 - Information That Must Be Copied

Purpose

This test will determine whether or not the employee has copied and/or repeated mandatory directives correctly.

Preparation & Conditions

This test should be conducted when and where a train and employees are required to copy and repeat any mandatory directives.

Procedure

Information that is required to be copied must only be transmitted to moving equipment when:

- It can be received and copied without impairing safety,
- Receiving employee is not operating the controls of the equipment, and
- Restriction is not within 3 miles unless;
 - Movement has stopped
 - Employee operating the controls of the equipment has been advised of the situation and can comply.

Follow the procedure for transmitting and repeating mandatory directives:

- **Train Dispatcher:**
 - Call the employee or train addressed and stated the intention to transmit a mandatory directive.
- **Receiving Employee:**
 - State title, name, and location.
 - Confirm being prepared to receive mandatory directive.
- **Train Dispatcher:**
 - State name of person copying mandatory directive.
 - Transmit the mandatory directive.
- **Receiving Employee:**
 - Copy the mandatory directive in writing on the prescribed form in the prescribed format.
 - Read back to the train dispatcher what has been written.
- **Train Dispatcher:**
 - Ensure accuracy of repeated directive.
 - State time and initials of employee authorized to issue mandatory directives.
- **Receiving Employee:**
 - Record the time and initials given.
 - Acknowledge the train dispatcher by repeating that information.
 - State receiving employee's initials.

Only those addressed by mandatory directives may act on them. Before acting on a mandatory directive, the employees affected must:

- Each have a written copy, and
- Make certain all members of the crew or work group read and understand it.

When mandatory directives have been fulfilled, annulled, or cancelled, employees must:

- Clearly mark the directive with an X, and
- Retain Form EC-1 for a period of 7 days.

Employees operating moving trains or equipment must not copy or repeat copied information.

Failure Defined

This test is a failure when any of the following exist:

- Train Dispatcher does not properly state the intention to transmit a mandatory directive.
- Train Dispatcher does not state name of person copying mandatory directive.
- Train Dispatcher does not state time and or initials of employee authorized to issue mandatory directives.
- Receiving Employee does not state title, name and/or location.
- Receiving Employee does not copy the directive on the prescribed form or in the prescribed format.
- Receiving Employee does not read back the correct directive given to him/her.
- Receiving Employee did not record time and/or initials given
- Receiving Employee did not acknowledge train dispatcher by repeating information.
- Directive was not marked with an X once fulfilled, annulled or cancelled.
- Form EC-1 was not retain for 7 days.

Test 20: Required radio announcements & sterile cab

Rules

Main, Signaled, and Siding Tracks:

- Rule 503.8
- Rule 503.9
- Rule 503.10
- Rule 503.11
- Rule 503.12
- Rule 503.14

Purpose

This test is to determine that employees are following proper procedures communicating required radio announcements for signals and restrictions affecting movement of the locomotive.

The officer will observe the communication between employees in the cab of the locomotive during Sterile Cab

Preparation & Conditions

This test is to be observed by the officer while riding in the cab.

Procedure

- The employee at the control of the equipment must announce by radio the following conditions or occurrences. The announcement must include the direction of travel, and in multiple track territory, the track name or number.
 - Signal aspect name and location of any signal that requires the train to approach the next signal prepared to stop, or
 - Signal aspect name and location of any signal that requires operating at restricted speed, or
 - Entry into work limits.
- If a train stops on a controlled track, a crew member must announce by radio:
 - Train has stopped
 - Reason for the stop,
 - Location of the head end, and
 - The above information every 15 minutes.
- Other crewmembers not in the operating cab of the lead locomotive:
 - Must acknowledge the announcement of:
 - Entry into working limits on controlled track.
 - Signal aspect name and location, or
 - Entry into TWC authority, or
 - Departure from TWC authority, or
 - If other crewmembers fail to acknowledge the announcements, a job briefing must be conducted at the next stop.
- Sterile cab must be established when:
 - Obtaining Form EC-1 instructions, or
 - Receiving permission to pass a Stop signal, or
 - Required to operate at Restricted speed, or
 - Operating on a signal indication or by rule that requires approaching the next signal prepared to stop, or
 - A minimum of two miles from the end limits of an authority designated on a Form EC-1, or
 - A minimum of two miles from and maintained until the movement has cleared the following:
 - A 25 MPH or less temporary speed restriction, or
 - Working limits, or
 - Location of a reported malfunction of a Highway-rail crossing at grade.

Failure Defined

This test is a failure when any of the following exist:

- The employee did not give the signal aspect name and location of signal that required train to approach the next signal prepared to stop, signal that required restricted speed and/or entry into work limits.
- When sterile cab was established, employee did not receive permission to pass a Stop signal, did not operate at restricted speed, did not operate a signal indication or by rule that requires approaching the next signal prepared to stop, was not a minimum of two miles from the end limits of an authority designated on a Form EC-1 and/or was not a minimum of two mile from and did not maintain movement until the following was cleared; 25 MPH or less temporary speed restriction, within working limits and/or location of a reported malfunction of a highway-rail crossing at grade.
- Crewmembers did not acknowledge one or any of the following: Entry into working limits on controlled track, Signal aspect name and location, entry into TWC authority or departure from TWC authority.
- Crewmember did not announce one or any of the following: The train had stopped, reason for the stop, location of the head end and/or did not repeat the information every 15 minutes.

Test 21: Required documents

Rules

Application of Rules and Special Instructions:

- Rule 100.3
- Rule 100.4
- Rule 100.5
- Rule 100.6

Rule Group 101 – System and Division Bulletins and Notices

Purpose

This test determines employee have the required documents to perform work

Preparation & Conditions

This test can be conducted at any time employees are on duty.

Procedure

Required documentation

Check to ensure employees have in their possession all of the following:

- Rules books specified by system bulletin,
- Applicable timetable instructions,
- System bulletins
- Applicable division bulletins

Failure Defined

Required documentation

This test is a failure if an employee does not have the proper documentation in their possession while on duty.

Test 22: Train documentation, Hazmat placement

Rules

- Rule Group 4003 – CSXT Train Documentation
- Rule Group 6100 – Required Documentation
- Rule Group 6150 – Inspection
- Rule Group 6350 – Train Placement

Purpose

Trains crews must have in their possession the CSX Train Documentation prior to leaving the origination point.

Cars carrying hazardous materials must not be handled unless a crew member has ALL of the proper documents. The cars must be properly placed in the train and the correct placards must be applied to all sides of each hazardous car.

Preparation & Conditions

This test may be conducted any time cars are being moved, when serving customers and picking up at interchange and intermediate terminals.

Procedure

CSXT Train Documentation

The testing officer will check to verify crew has the proper train and hazmat documentation. Additionally, for trains carrying hazmat cars, the testing officer will verify:

- They must possess acceptable shipping papers,
- Acceptable emergency response information,
- A document showing the current numeric position of the hazardous material shipment in the train,
- Train crew has a current copy of the Emergency Response Guidebook accessible.

The testing officer will also inspect the CT-168 document to determine if hazardous loads/residue shipments are correct in train placement. When picking-up or setting-out, this document is to be updated before the train departs location. The train crew may update the document by handwriting on it or by appending or attaching another document to it. Hazardous materials cars must not be moved unless properly placarded and marked.

Additional alert car requirements:

- Paperwork must include Chain of Custody record/work order
- Transfer of Custody Records includes all required information when handed off between crews delivered to an industry, at inter-change points, or at the train's destination.

Failure Defined

The test is a failure if crew does not have CSXT Train Documents and any of the conditions are found for trains with hazmat cars:

- Crew does not have proper shipping papers, or current emergency response Guidebook
- Hazardous materials cars are not properly placed in the train,
- CT-168 document is missing or not updated to show proper placement of hazardous shipments in train,
- Hazardous materials cars are not properly placarded and marked,
- Missing Transfer of Custody form,
- Information on the Transfer of Custody form is inaccurate or incomplete, or
- Cars left unattended at locations where there must be a positive hand-off.

Test 23: Inspecting passing trains

Rules

End-of-Train Marker: Rule 205.8

Operating Machines and On-Track Equipment: Rule 712.34

Observation of Trains

- Rule – 4250.1
- Rule – 4250.3

Purpose

This test is designed to ensure employees are in compliance with the inspection passing of trains.

Preparation & Conditions

This test can be conducted on passing trains, trains that are meeting or on a stopped train.

Procedure

- Operators must inspect passing trains when duties permit
- Employees must observe passing trains for markers.
 - If the marker is not properly displayed, notify the crew of the passing train.
 - If unable to contact the passing train, notify the train dispatcher.
- When being passed by a train on an adjacent track, inspect the passing train for defects as follows:
 - Stand at least 30 feet from the passing train when possible,
 - If two or more employees are present, position at least one employee on each side of the train and
 - Promptly notify the train crew of the results of the inspection.
- Employees must visually inspect their train and passing trains for defects or unsafe conditions such as;
 - Hot bearings,
 - Sticking brakes,
 - Sliding wheels,
 - Dragging equipment,
 - Evidence of fire,
 - Shifted or insecure lading,
 - Any damage or defect likely to cause accident or injury.
- When a moving train is meeting or passing another train, crew members must visually inspect the train being met or passed for defects and unsafe conditions. Crew members of a stopped train being met or passed must inspect the passing train as follows:
 - The conductor of the stopped train must inspect the passing train from the ground in a location that is no closer than 30 feet from the passing train and not between the rails of any tracks. When safe to do so, the conductor must be in a location that permits inspecting the opposite side of the passing train.
 - The locomotive operator must inspect the passing train from the same side of his/her standing train.

Failure Defined

This test is a failure when any of the following exist:

- The employee is closer than 30 feet of the passing train and/or between the rails of the track.
- The employee does not observe defects or unsafe conditions.

Test 24: Inspecting cars being added to a train

Rules

- Rule Group 4001 – Inspecting the Loading of Cars When Switching
- Rule Group 4051 – Performing Car Inspection
- Rule Group 4052 – Discovering a Car that is Unsafe to Move
- Rule Group 6151 – General Inspection Requirements
- Rule Group 6152 – Inspecting Requirements

Purpose

This test is to ensure that cars being added to a train are safe to move.

Preparation & Conditions

This test will be conducted at the locations cars are added to trains.

Procedure

When switching industry tracks or other locations where cars are being loaded or unloaded, notify the appropriate personnel, check any overhead or side clearances to make certain that the car will clear, and do not move a car that:

- Is loaded heavily on one side or one end, or
- Is overloaded, or
- Has lading projecting over the ends or sides.

Car Inspection:

- Before cars are added to a train, both sides of the cars must be inspected from the ground to make certain that they do not;
 - Lean or list to the side, or
 - Sag downward, or
 - Have any object hanging below it, or
 - Have any object extending from its side, or
 - Have a door insecurely attached, or
 - Have any broke or missing appliances.
- Couplers are not cracked or broken;
- Bearings are not overheated;
- Wheels are not overheated, broken or cracked;
- The hand brake releases;
- Retainer valves are placed in the Direct Exhaust position;
- Cables, chains, straps and bands are properly applied to loads, or secured if the car is empty; and
- The car does not have any apparent safety hazards.
- Do not accept a defective car for movement in a train unless authorized by a supervisor.
- Unless authorized by the Mechanical Department, do not accept cars equipped with friction bearing for movement in any train.
- If car is unsafe for movement, ask the train dispatcher or a supervisor for instructions.

General Requirements for Hazardous Material

- To determine that they are secure and in acceptable condition for transportation, all loaded and residue/empty hazardous material shipments must be inspected at these points:
 - Before accepting them from the shipper,
 - When receiving them in interchange,
 - Note: Run-through trains received in interchange may continue to the next inspection point before being inspected.
 - When placing them in a train,
 - At other points where an inspection is required (e.g., 1000 mile inspection).
- Accept or transport only those hazardous material shipments that conform to these instructions.

Hazardous Material Inspection

In addition to inspecting all rail cars for compliance with train make up, adequate buffer cars, shiftable loads and temperature control equipment (see Figure 11, Position in Train Chart, Rule 6350) as well as mechanical requirements, visually inspect each loaded or residue/empty hazardous material shipment (including flat cars transporting placarded or marked trailers or containers) and adjacent rail cars, from ground level (do not climb on or go under the car) and check for:

- Leakage
- Required placards and markings, including stenciling, car certificates, and qualification dates (See Rule 6200 for details)
- Secure fastening of closures
- Signs of tampering, such as suspicious items or items that do not belong, the presence of an “Improvised Explosive Device” (IED), and other signs that the security of the car may have been comprised.

Where an indication of tampering or a foreign object is found, take the following actions:

- Do not accept or move the rail car.
- Immediately move yourself and others to a safe location away from the rail car before using radios and cell phones to make notifications.
- For cars at a customer’s facility, immediately contact local plant personnel. If local plant personnel are not available or cannot explain what you see, immediately contact the train dispatcher (follow your specific railroad instructions).
- For cars on interchange tracks or in the yard, immediately contact the yardmaster or train dispatcher (follow your specific railroad instructions).

Inspecting All Car Types (from ground level)

- Without climbing on the car, make sure that the hazardous material shipment is not leaking.
 - Look for leaking contents – drips, wetness, or material on the car or on the ground.
 - Look for a vapor cloud.
 - Listen for hissing sounds of the contents escaping.
 - Note: If you find a hazardous material shipment leaking, follow the instructions in Rule 6153 and in Rule 6505 (Emergency Response), item 5.
- Make sure placards and marking are appropriate for the shipment and displayed correctly (see Rule 6200, Placards and Markings).
- Before accepting a hazardous material shipment from the shipper, make sure that:
 - All customer loading and unloading lines are disconnected,
 - Derails, chocks and blue flags are removed,
 - All platforms are raised or in the clear.

Inspecting Placarded/Marked Tank Cars (from ground level)

- Check placarded tank cars or tank cars marked with an identification number to see that:
 - Visible plugs or caps (including bottom outlet caps) or other fittings are securely in place, *Note: When heater coil caps are provided, they must applied.*
 - “Double shelf couplers” and roller bearings are present.
 - Protective housing covers are closed,
 - Manway cover swing bolts are up and in place,
 - All valves and fittings appear to be closed and secure,

Inspecting Placarded/Marked Gondola Cars (from ground level)

- Look for loosely fastened gondola covers,
- Make sure the cover or tie downs do not foul any safety appliances.

Inspecting Placarded/Marked Hopper Cars (from ground level)

- Check that discharge gates are closed and secured.

Inspecting Shipments Placarded EXPLOSIVES 1.1 or 1.2 (from ground level)

- Look for indication of damage to the contents,
- Make sure that completed “car certificates” are displayed on both sides of the rail car.
 - Car certificates must be removed after the rail car, trailer, or container is unloaded.
 - Car Certificates are either 7.1 by 7.1 inches or 5.9 by 7.9 inches in size
- Do not accept or transport the car until all damage has been corrected and car certificates are placed.

Inspecting Placarded/Marked Intermodal Shipment (from ground level)

- In addition to completing other inspection requirements in this section:
 - Make sure that an intermodal tank container of hazardous material is not transported with a container above or below the tank.
 - Make sure that placards are fully visible when containers are loaded in a well car.
 - Make sure that intermodal tanks are placed so that the bottom outlet valves are pointed toward the ends of the well or platform.

Handling Defects

- When a hazardous material shipment does not appear to be prepared for transportation:
 - Do not accept or pull the hazardous material shipment or allow it to continue in transportation.
 - Notify the customer, train dispatcher, yardmaster, or your immediate supervisor, as appropriate, and explain the problem.

Failure Defined

This test is a failure when any of the following exist:

- Load is too heavy on one side or one end, overloaded and or has lading over the ends of sides of car when switching industry tracks or other locations while being loaded or unloaded.
- Added cars to train that had apparent safety hazards such as coupler cracked/broken, overheated bearings, cables/chains/straps not properly applied to loads of secured if car is empty, broken/cracked or overheated wheels etc.
- Did not contact train dispatcher or a supervisor for instructions related to moving an unsafe car.
- Cars not inspected before accepting from the shipper, before placing in the train and/or at other points where inspection is required (1000 mile inspection).
- Closures were not fastened securely.
- Added cars with leakage, drips, vapor cloud or material on the ground.
- Cars missing required placards, markings, stenciling, car certificates and/or qualification dates.
- Derails, chocks and/or blue flags were not removed.
- Plugs/caps and or other fitting were not secured.
- Double shelf couplers and/or roller bearings were not present.
- Protective housing covers were not closed, manway cover swing bolts were not up and in place and or/ valves and fittings were not closed/secured.
- Gondola covers not secured tightly
- Discharge gates not closed/secured
- Completed “car certificates” not displayed on both sides of the rail car.
- Car certificate was not removed after the rail car, trailer or container was unloaded.
- Placards not fully visible on well cars.
- Intermodal tanks were placed with the outlet valves pointed in the wrong direction.

Test 25: Remote control operations

Rules

- Rule 405.4
- Rule Group 900 – General Requirements
- Rule Group 901 – Required Safety Tests
- Rule Group 902 – Remote Control Zones
- Rule Group 903 – Positive Stop Protection (PSP)
- Rule Group 904 – Operating Remote Control Equipment

Purpose

This test is to ensure RCO Operators are following RCO operations correctly.

Preparation & Conditions

This test can be observed anywhere RCO operations are being performed.

Procedure

Operator control units must be:

- Operated by an employee wearing an approved remote control harness, attached at all four corners and worn in the approved harness so that the tilt feature activates as intended.
- If any remote control equipment is found damaged or defective, immediately remove from service and report to a supervisor.

Locomotive operators must not:

- Control more than one remote consist at a time,
- Must not operate any other equipment while operating remote control equipment, or
- Control a remote control consist while riding in any other equipment or vehicle.

Operator control units must not be left unattended, when not in use, turn them off, leave in the possession of a locomotive operator working in a remote control service or store in a secure location as directed by special instructions.

- Immediately contact a supervisor or yardmaster on duty for instructions concerning any control unit found unattended.

Safety test are required when:

- Beginning a tour of duty,
- Operator control unit is linked to a remote control locomotive or platform.
- Separate safety tests are required for each operator control unit linked to a remote control locomotive or platform.

Safety Tests:

- **Tilt Test**
 - Confirm the appropriate radios are on and set to the proper channel,
 - Use positive identification to announce by radio that a tilt test will be performed,
 - Ensure the operator control unit being tested is properly attached to the harness and the harness is properly worn,
 - Test only one operator control unit at a time by tilting the operator control unit more than 45 degrees,
 - Confirm an emergency brake application is initiated by the remote control locomotive or platform,
 - Confirm with another railroad employee that the man-down emergency radio message was received on the proper channel,

- Repeat the test for each operator control unit linked to the remote control locomotive platform, and
- Use positive identification to announce by radio that the tilt test(s) is complete.
- **Vigilance/Reset Test**
 - Select forward or reverse,
 - Press vigilance/reset switch,
 - Select Coast B
 - Confirm vigilance alarm sounds after 50 seconds,
 - Confirm a full service penalty application occurs after 60 seconds,
 - Recover full service penalty application, and
 - Repeat test for each operator control unit linked to the remote control locomotive or platform.
- **If remote control equipment fails a safety test:**
 - Do not use the equipment in remote control service, and report the failure to the proper authority.

Follow procedures in the Remote Control Operations Instructions Manual when:

- Required to perform air brake or hand brake tests.

Remote Control Zones

- Special instructions identify remote control zones and must include:
 - Location of zone(s)
 - Limits of zone(s)
 - Whether remote control zone signs are used and how they must be displayed,
 - Requirements of any switches or derails that must be locked, and
 - Method used to make highway-rail and pedestrian crossings at grade inaccessible, if applicable.
- When yardmaster is on-duty, the remote control operator foreman must receive permission from the yardmaster to activate a remote control zone
- Prior to activating a remote control zone, a member of the crew that will utilize the zone must visually determine:
 - Tracks are clear,
 - No roadway worker protection or blue signal protection is active on the tracks,
 - Switches and derails are properly lined and locked, if required,
 - All highway-rail and pedestrian crossings are made inaccessible, and
 - Remote control zone signs are displayed, if used.

Once activated, a remote control zone is under the control of the remote control operator foreman. The remote control crew who activated the zone may make movements within the limits of the zone without providing protection.

- In active remote control zones, only the remote control operator foreman can grant permission for other employees or equipment to:
 - Foul or occupy tracks, or
 - Cross a road or pedestrian crossing.

- After the remote control operator foreman grants permission for a movement to enter an active remote control zone, all remote control movements must be protected until the zone is clear and the employee who was granted permission reports clear of the zone. A remote control crew may resume utilizing the zone after the following:
 - If permission was granted to a train or locomotive crew, direct communication from the ranking employee of the crew granted permission verifying the:
 - Tracks are clear,
 - Portable derails or blue flags have been removed, and
 - Switches and derails are properly lined and locked if required.
 - If permission was granted to cross a road or pedestrian crossing within the remote control zone, visual inspection by a member of the remote control crew to determine the crossing has been made inaccessible.
- **The remote control operator foreman must deactivate the remote control zone when going off duty unless the zone is directly transferred to another remote control foreman by:**
 - Performing a face-to-face job briefing, and
 - If applicable, notifying the yardmaster that the remote control zone has been transferred.
- **If a remote control operator foreman fails to deactivate a remote control zone, a yardmaster or supervisor can de-activate the zone after all of the following have been verified:**
 - Remote control operator foreman who has controlled the zone is off duty,
 - Remote control locomotive used by the crew is in manual mode, and
 - The remote control zone was not transferred to another remote control crew.
- **Positive Stop Protection**
 - When using Positive Stop Protection, the remote control locomotive must be equipped with PSP and be the leading end of each movement.
 - PSP must be tested before initial use on each shift or of a PSP locomotive.
 - To perform PSP test the locomotive operator must:
 - Be in a position to visually verify when the lead locomotive reaches the first and second track transponders (puck),
 - Operate the locomotive towards the track transponders (pucks), and
 - Verify the operator control unit provides an audible alert and displays the expected message when the locomotive reaches the first and second transponders (pucks).
 - When using PSP the locomotive operator must:
 - Match transponder (puck) speed commands, or use a lower speed on the operator control unit;
 - Not use Coast or Coast B; and
 - Protect the leading end if necessary to override PSP.

Operating Remote Control Equipment

- Procedure and instructions contained in Remote Control Operation Instruction Manuals are mandatory when operating remote control equipment.
- The leading end of remote control movements must be protected by a crewmember or other qualified employee except when the remote control locomotive or locomotive platform is the leading end and located within an active remote control zone controlled by the remote control foreman.
- When initiating a movement, the primary locomotive operator or other crewmember must visually determine movement occurs in the desired direction and must:
 - Not rely on the visual determination of any other employee who is not a member of the crew,
 - Note LED screen on the RCL II Units displays speed, and
 - Immediately place the Speed Select to STOP if movement is not visually determined.
- While movement is occurring, at least one member of the crew must maintain visual contact with a portion of the equipment.

- Before transferring (pitching) primary control of remote control equipment to another locomotive operator:
 - Primary operator must verbally inform the secondary operator that control will be transferred, and
 - The secondary operator must verbally confirm he or she is ready to receive control.

Failure Defined

This test is a failure when any of the following exist:

- Harness not properly attached at all four corners.
- Did not perform all/or certain steps in the Tilt test.
- Did not perform all/or certain steps in the Vigilance/Reset test.
- Employee did not report equipment with defects/damage to a supervisor.
- Required hand brake and/or air brake test not performed.
- Employee did not verify Remote Control Zones or provide proper protections before movements began.
- Portable derails or blue flags not removed, switches/derails not properly lined and/or locked, pedestrian crossing not visually inspected prior to permission granted to access remote control zone.
- Remote control zone was not deactivated and/or face to face was not performed when employee was going off duty.
- PSP was not tested prior to beginning of shift.
- Employee did not follow all/or certain steps of the PSP test.
- The leading end of remote control movement was not protected by crewmember/qualified employee.
- Employee did not follow proper procedures when operating remote control equipment
- Primary operator did not verbally inform the secondary operator that control would be transferred.
- Secondary operator did not verbally confirm he/she was ready to receive control.

Test 26: Utility employee

Rules

Rule Group 400 – Utility Employee

Purpose

This test is to determine that communication is maintained to ensure the safety of the Utility employee.

Preparation & Conditions

The officer is to observe while the utility employee is working independently or as a member of the train/yard crew.

Procedure

- Any employee who is not a member of the train or yard crew may only foul equipment to perform work if:
 - Assigned as a utility employee who has been attached to the train or yard crew, or
 - Blue signal protections is established.
- A utility employee may only be assigned to one train or yard crew at any one time. No more than three utility employees may be assigned to work with a single train or yard crew.
- A utility employee may work as a member of a train or yard crew after the following steps have been taken to attach to the crew:
 - The train or yard crew is assigned a controlling locomotive that is under the actual control of the locomotive operator;
 - The locomotive operator is in the cab of the controlling locomotive, a remote locomotive in remote control mode is under the control of a locomotive operator assigned to that crew, or a member of the same crew is in the locomotive cab while the locomotive is stationary;
 - The utility employee establishes communication with the crew by contacting ranking crewmember of the train;
 - The ranking crewmember provides notice to each crewmember of the presence and identity of the utility employee'
 - All crewmembers acknowledge their understanding; and
 - The ranking crewmember advises the utility employee that he or she is authorized to work as part of the crew.
- After a utility employee has been attached to a crew, communication must be maintained in such a manner that each member of the train or yard crew understands the duties to be performed and whether those duties will cause any crewmember to go on, under, or between the rolling equipment.
- A utility employee who has been attached to a crew may only foul the equipment without blue signal protection to perform the following tasks:
 - Set or release hand brakes; or
 - Prepare rail cars for coupling; or
 - Couple or uncouple air hoses and other connections; or
 - Conduct air brake test to include cutting air brake components in or out or position retaining valves; or
 - Inspect, test, install, remove, or replace an end-of-train- marker.
- When the utility employee has ceased all work in connection with that train and is no longer on, under or between the equipment, the utility employee must notify the ranking crewmember. To release a utility employee from a train or yard crew, the following steps must be taken:
 - The utility employee must inform the ranking crewmember that he or she is no longer fouling the equipment,

- The ranking employee must notify each crewmember that the utility employee is being released from the crew,
- All crewmembers must acknowledge their understanding, and
- The ranking employee must inform the utility employee that he or she has been released.
- Utility employees must not release hand brakes on a train or cut of cars until:
 - Properly attaching to the crew and notifying each crewmember,
 - Confirming the track name or track number equipment is occupying with ranking employee, and
 - Verifying at least one car (including car initials and numbers) within train or cut of cars.

Failure Defined

This test is a failure when any of the following exist:

- Utility employee did not establish Blue Signal Protection before fouling equipment when required.
- Utility employee did not contact the ranking crewmember of the train.
- Utility employee did not receive authority to work as part of crew.
- Utility employee did not notify the ranking crewmember that all work had been completed.
- Utility employee did not notify the ranking crewmember when he/she was no longer under or between equipment.
- Utility employee did not confirm with ranking crewmember the track name or track number the equipment was occupying before the release of hand brakes.
- Utility employee did not verify at least one car (including car initials and numbers) within train or cut of cars before the release of hand brakes.

Test 27: Protection in bowl tracks of automated hump yard

Rules

Rule Group 1100 – Required Protection in the Bowl Tracks

Purpose

This test is to determine that employees are providing the proper protection in the bowl tracks of an automated hump yards.

Preparation & Conditions

The officer may observe these conditions at any time work is being done in the bowl yard.

Procedure

- Request protection in bowl tracks of a hump yard before
 - Entering a bowl track with equipment, or
 - Fouling equipment located in a bowl track, or
 - Traversing a road crossing within the bowl in a motorized vehicle of any type
- The employee requesting the protection must contact the operator of remotely controlled switches and:
 - State the type of work to be done,
 - State the track or tracks on which protection is needed, and
 - Received confirmation that the protection is provided.
- The employee controlling remotely controlled switches must:
 - Line each switch against movement into the tracks being protected,
 - Apply blocking devices to the switches,
 - Notify the requesting employee that the protection is provided, and
 - Not remove the protection until informed by the requesting employee that protection is no longer needed and it is safe to do so.
- Maintain a written record for 15 days for each occurrence when protection is provided. The record must contain:
 - Name and craft of employee requesting protection,
 - Name and craft of employee providing the protection,
 - Track or tracks involved,
 - Date and time employee was notified that protection was provided, and
 - Date and time operator of the switches was informed that work was completed and employees were clear of affected tracks.

Failure Defined

This test is a failure when any of the following exist:

- Employee did not request protection before entering a bowl track with equipment, before fouling equipment located in a bowl track and/or traversing a road crossing within the bowl in a motorized vehicle of any type.
- Employee requesting protection of remotely controlled switches did not state type of work to be done, did not state the track or tracks for which protection is required and/or did not receive communication that the protection was provided.
- Employee controlling the remotely controlled switches did not line each switch against movement into the track or tracks being protected, did not apply blocking devices to the switches, did not notify the requesting employee that the protection was provided and/or did not notify the requesting employee when protection was no longer needed/safe.
- Written records were not retained for 15 days for each occurrence of protection.

- Written records did not contain one or any of the following information.
 - Name and craft of employee requesting protection,
 - Name and craft of employee providing protection,
 - Track or tracks involved,
 - Date and time employee was notified protection was provided,
 - Date and time operator of the switches was informed that work was completed and employees were clear of affected tracks.

Test 28: Blue Signal Protection

Rules

- Rule Group 1101 – Blue Signal Protection General Rules
- Rule Group 1102 – Establishing Blue Signal Protection
- Rule Group 1103 – Remotely Controlled Switches
- Rule Group 1104 – Locomotive Servicing Track Area
- Rule Group 1105 – Car Shop Repair Track Area

Purpose

The purpose of this test is to ensure Blue Signal Protection is being properly applied and used while mechanical forces are performing work that requires Blue Signal Protection.

Preparation & Conditions

This test can be performed any time Blue Signal Protection needs to be established by a qualified mechanical employee.

Procedure

Blue Signal protection must be established before workmen go on, under, or between rolling equipment except when assigned to the equipment.

When blue signals are displayed

- May only be removed by an employee of the same craft or group that displayed them
- Equipment must not pass the blue signal
- Equipment protected by blue signal must not be coupled to except as provided for in the rules that govern designated locomotive servicing track areas and car shop repair tracks

Establishing Blue Signal Protection

Main Track

- Blue signals should be displayed
 - At the end of the equipment and
 - On the controlling locomotive in a location readily visible to the locomotive operator if a locomotive is attached

Other than Main Track

- Display a blue signal at or near each manually operated switch that provides access to the track
- Line each switch that provides access against the movement and lock with an effective locking device or place a derail capable of restricting access to that portion of the track. The derail must be no less than 150 feet from the end of the equipment and locked in the derailing position and a blue signal is displayed.
- If rolling equipment is on a track with one or more crossovers, line both switches of each crossover against the movement through the crossover toward the rolling equipment and line the switch of each crossover that provides coupling access to the rolling equipment against movement to the track and lock with an effective locking device.
- Attach a blue signal to the controlling locomotive, if any, in a location readily visible to the locomotive operator at the controls of that locomotive.

Locomotive Servicing Area

To establish blue signal protection in a designated locomotive servicing track area

- Display a blue signal at or near each switch that provides entrance to or departure from the area
- Line each switch that provides entrance to or departure from the area against movement and lock with a locking device, or if authorized speed within the area is not more than 5 MPH, a derail capable of restricting access to that portion of the track, provided it is positioned at least 50 feet from the end of the equipment to be protected by the blue signal, is locked in a derailing position and displays blue signal
- Attach a blue signal to each controlling locomotive in allocation readily visible to the locomotive operator at the controls of that locomotive.

Car Shop Repair Track Area

To establish blue signal protection in a designated car shop repair track area:

- Display a blue signal at or near each switch providing entrance to or departure from the area
- Line each switch providing entrance to or departure from the area against movement to the area and lock with a locking device, or if authorized speed within the area is not more than 5 MPH, a derail capable of restricting access to that portion of the track, provided it is positioned at least 50 feet from the end of the equipment to be protected by blue signal, is locked in a derailing position with a locking device and displays a blue signal.

Remotely Controlled Switches

When blue signal protection is required on tracks with remotely controlled switches, the operator of the switches must take the following actions:

- Line each switch connected to the affected track(s) against movement and apply a lock
- Inform the employee in charge of the workmen that protection has been provided, after the switches have been lined and locked
- Remove the locking device only when informed by the employee in charge of the workmen that it is safe to do so and all employees are clear of affect tracks.

The operator of remotely controlled switches must record the following information and retain for 15 days:

- Name and craft of employee requesting protection
- Number or name of track involved
- Date/time the employee in charge of the workmen was notified that protection was established
- Name and craft of employee who notified the operator that protection was no longer required.

Locomotive Servicing Track Area

To move a locomotive

- Onto a locomotive servicing track displaying blue signal protection
 - Remove the blue signal from the entrance switch to the area before granting permission to the employee controlling the locomotive
 - Restore blue signal protection immediately after the locomotive clears the switch
- Off a locomotive servicing track displaying blue signal protection
 - Remove the blue signal from the controlling locomotive and the switch of the track the locomotive will exit before granting permission to the employee operating the locomotive
 - Restore blue signal protection immediately after the locomotive clears the switch

When operated by an authorized employee under the direction of the person in charge of the workmen

- A locomotive protected by blue signals may be repositioned within a locomotive servicing track area only after the blue signal has been removed from the locomotive to be repositioned and the workmen on the affected track have been notified of the movement.

Train or yard crews may couple locomotives inside a locomotive servicing track area after

- Blue signal has been removed from the entrance switch to the area
- Employee responsible for the workmen has informed the locomotive operator that no workman is on, under, or between equipment on the affected track(s) and blue signals have been removed from the affected locomotives.

Car Shop Repair Track Area

When operated by an authorized employee under the direction of the employee in charge of the workmen, a car mover may be used to reposition rolling equipment within a car shop repair track area after workmen on the affected track have been notified of the movement.

Failure Defined

Failure occurs when:

- Blue signal protection is not properly established
 - Switches are not properly lined and locked
- Blue signal is removed by an unauthorized individual
- Locomotives are moved onto or off of locomotive servicing tracks without proper permission
- Blue signal protection is not immediately restored to locomotive servicing tracks
- Remotely controlled switches are not properly secured
- Records are not maintained for the appropriate amount of time
- Equipment passes a blue signal

Test 29: Simulated Mechanical Defect

Rules

Rule 4051.1

Purpose

The purpose of this test is to ensure employees have properly inspected cars for defects

Preparation & Conditions

This test can be performed any time a train or car inspection is being performed.

Tools needed for this test:

- Company approved Simulated Mechanical Defect Magnetic Tag

Procedure

1. Attain Blue Signal protection to place the defect tags,
2. Place the defect tags on the equipment only in visible areas specified below.
 - a. Coupler/Knuckle assembly
 - b. Truck Frame
 - c. Wheel Bearing
 - d. Ladder
3. Do not place more than 4 total defect tags on the equipment to be inspected.
4. Record the car number(s) and location(s) of each defect tag placed

Employees are instructed by the tag to record the car number and return the tag to the Supervisor.

Supervisor must observe the employee inspecting the rail cars and immediately approach the employee when they discover the tag or remove the tag immediately if the employee does not discover or observe the simulated defect and provide feedback.

Failure Defined

The test is determined to be a failure when the employee fails to discover or observe the simulated mechanical defect tag on a component of the rail car requiring inspection.

Test 30: Jacking Equipment

Rules

Rule Group 2509 – Jacking or Lifting Cars

Purpose

The purpose of this test is to ensure that Mechanical employees are using proper procedures when jacking or lifting equipment

Preparation & Conditions

This test may be performed on any qualified mechanical employee that will be jacking or lifting equipment.

Procedure

Mechanical employees jacking or lifting cars must:

- Make sure car is properly chocked,
- Make sure blocking under jack is at least as large as the jack base
- Use proper jacks with shims and ensure no metal-to-metal contact,
- Use two jacks at all times except when using a Portec center of car jack or at derailments, and
- Have approved jack stands or blocking devices in place prior to going under lifted cars

Failure Defined

Failure occurs when:

- Employees attempt to jack or lift cars and have not been properly qualified
- Employees do not use the proper equipment to lift the equipment
- Employees do not use the proper equipment configuration when lifting equipment

Test 31: Fall Protection

Rules

Rule Group 2010 – Fall Protection

Purpose

The purpose of this test is to ensure that employees that are required to use fall protection are doing so using the proper procedures.

Preparation & Conditions

This test may be performed on any employee that has been properly trained on fall protection and will be using fall protection.

Procedure

Employees must

- Utilize personal fall protection system when required.
- Inspect the equipment for defects in strength and functionality before using fall protection equipment, fall retrieval equipment or flotation devices.
- Have a written fall retrieval plan when work requires fall arrest equipment.

The use of fall restraint or fall arrest equipment is required when working 12 feet or more above the ground or water surface except when:

- Work is exclusively between, with no weight-bearing portion outside of the running rails and no closer than six feet from an opening in the deck greater than one foot by one foot; or
- Work is outside the running rails on a bridge equipped with walkways and railings of sufficient height, width, and strength to prevent a fall and no closer than six feet from an opening in the deck or walkway greater than one foot by one foot; or
- A person qualified to perform bridge inspection has in their possession a valid bridge climbing procedures training card and is engaged solely in moving on or about the bridge or observing, measuring, and recording the dimensions and conditions of the bridge and its components.

Failure Defined

Failure occurs when:

- Employee required to use fall protection is not wearing fall protection
- Equipment was not properly inspected prior to use
- The required paperwork is not completed when using fall arrest equipment

Test 32: Energized Equipment (Lockout/Tagout)

Rules

Rule Group 2305 – Electrical Hazards

Purpose

The purpose of this test is to ensure that employees working with electrical hazards are doing so in such a manner that they will not come in contact with live power. This test also ensures that the energized equipment that an employee is working with is properly de-energized so there is no unexpected movement of the equipment or any of the mechanized parts of the equipment.

Preparation & Conditions

This test can be performed any time a qualified employee is going to work on energized equipment or with electrical hazards.

Procedure

Electrical work must only be performed by qualified employees. When performing electrical work, employees must:

- Use the proper lock-out/tag-out procedures when required before performing work,
- Verify with a meter that the circuit is de-energized before performing work, and
- Allow no conductive material to come in contact with live power.

Failure Defined

Failure occurs when any of the following occurs:

- Employee attempts to perform work and is not properly qualified
- Employee does not use the proper lock-out/tag-out procedures if required before performing work
- The circuit has not been tested to ensure it has been properly de-energized before performing work
- The employee allows conductive material to come in contact with live power.

Test 33: Operating Machines and Moving Equipment (Red Zones)

Rules

Rule Group 2503 – Operating Mechanized Equipment
Rule Group 2405 – Cranes and Hoisting Equipment
Rule Group 2506 – Spotting Cars within Shop Facilities
Rules - 712.24 - 712.26

Purpose

The purpose of this test is to ensure that employees are observing the proper procedures when operating machines and moving equipment.

Preparation & Conditions

This test can be performed any time a qualified employee is operating machines or moving equipment.

Procedure

Employees operating mechanized equipment must:

- Use equipment only to its rated capacity
- Inspect to see that equipment being operating has a properly maintained back up alarm, top mounted flashing amber light, fire extinguisher, and a first aid kit available
- Ride and operate equipment only in the manner in which it was designed
- Sound a warning and reduce speed when view is restricted
- Stop equipment when the operator's attention cannot be directed exclusively to control the movement
- Transport passengers only in designated permanently installed seats
- Never leave running mechanized equipment unattended
- Maintain contact between fuel pipe and tank while fueling
- See that lock-out/tag-out devices are in place before maintaining or repairing equipment

Employees qualified to perform work with cranes and hoisting equipment must:

- Respond to standard signals from the designated person only
- Sound a warning signal before moving in any direction or near people
- Keep boom and cables away from all obstructions or power lines
- Turn off power before leaving equipment unattended
- Lower the load and secure the boom when clearing for a passing train
- Use tag lines when necessary to control loads that are being moved higher than knee level. This does not preclude placing hands on a load for initial or final alignment.

Employees qualified to perform work with cranes and hoisting equipment must not:

- Use dragging movement, unless performing dragline operations
- Exceed capacity for the lowest rated component
- Work under a suspended load or place yourself between a suspended load and an obstruction
- Leave a suspended load unattended

Engineering Employees

When operating mechanized equipment employee must:

- Wear seat belts when tramming
- Operate equipment at a safe speed following the speed chart provided in Operating Rule 712.17, Maximum Speeds.

Mechanical Employees

When Operating mechanized equipment employee must:

- Wear a seat belt, when equipped
- Operate equipment not to exceed 15 MPH

When spotting cars within shop facility employee must:

- Activate track alarms before moving on-track equipment
- Make sure all personnel are clear of movement
- Chock wheels in both directions before uncoupling from cars

Failure Defined

Failure occurs when:

- No inspection of the equipment is completed prior to use
- Equipment is not being used for its intended use
- Employee fails to follow the proper procedures for operating the equipment
- Employee fails to provide appropriate warnings to employees nearby
- Running equipment is left unattended
- Equipment is not properly secured
- Employee fails to use proper procedures when operating cranes or hoisting equipment

Test 34: Roadway Worker Protection: Controlled and Non-Controlled Track

Rules

- Rule Group 701 – On-Track Safety and Job Briefing Requirements
- Rule Group 703 – Adjacent Controlled Tracks On-Track Safety
- Rule Group 704 - EC-1/EC-1e Line 1 Authority
- Rule Group 705 – Individual Train Detection, Train Approach Warning and Train Coordination
- Rule Group 706 – Working Limits on Non-Controlled Tracks
- Rule Group 707 - Working Limits on Controlled Tracks (Conditional Stop)

Purpose

The purpose of this test is ensure that the proper Roadway Worker Protection is established when employees will be working on or about tracks

Preparation & Conditions

This test can be performed any time Roadway Worker Protection needs to be established on controlled or non-controlled track.

Procedure

Job Briefing

Employee-In-Charge

- Prior to starting work that will require an employee to foul a track, the Employee-In-Charge or designated employee must perform a job briefing with the group
- Before any member of a Roadway Work Group fouls a track, the employee-in-charge must inform each roadway working:
 - Of the on-track safety protection established at the work location
 - That there are no changes in the type of on-track safety protection without notification of the change to each roadway worker

Lone Worker

- At the beginning of each tour of duty, or as soon as possible when communication is not immediately available, a Lone Worker must conduct a job briefing with the supervisor or employee designated by the supervisor and communicate his or her:
 - Work Plan
 - Intended procedures for on-track safety
 - Verify access to the current CSX Employee Operating Manual and relevant System Bulletins

Roadway Workers

- Roadway workers may cross tracks without track protection as long as no work is performed.
- Roadway workers must stop and look in both directions before:
 - Fouling or crossing a track or set of tracks. It is permissible to cross more than one track without stopping at each track if safe to do so
 - Moving from under or between equipment
 - Getting on or off equipment
 - Operating a switch or derail

Adjacent Controlled Track On-Track Safety

- On-Track Safety is required for each adjacent track by establishing work limits or train approach warning when:

- Deemed necessary by the employee-in-charge, consistent with adjacent controlled track on-track safety rules
 - A roadway work group is on an occupied track and one or more roadway workers are on the ground engaged in a common task with on-track self-propelled or coupled equipment.
- When multiple hi-rail or rail-bound vehicles are engaged in a common task for inspection or minor repairs, the on-track safety job briefing must include discussion of addressing the nature of the work that will be performed to determine if adjacent controlled track on-track safety is required
- The employee-in-charge with adjacent controlled track protection may permit other on-track equipment movements not associated with the roadway work group onto the occupied track within the work limits after:
 - Conducting a job briefing
 - Recording on the proper form the name of the EIC of the other roadway work group and the nature of the work to be performed
- When notified that trains or on-track equipment are authorized to move on an adjacent controlled track at speeds greater than 25 MPH for freight trains and on-track equipment or greater than 40 MPH for passenger trains and passenger on-track equipment, each roadway worker must:
 - Ensure all work is stopped on the occupied track
 - Move to a predetermined place of safety (PPS)
- When notified trains or on-track equipment will be moving at speeds less than what is described above, each roadway worker must move to a PPS. Work may only continue:
 - On the side of the occupied track with no adjacent track
 - On the side nearest an adjacent controlled track with working limits and no authorized movement
 - Between the rails of the occupied track when all of the following conditions are met
 - On-track equipment on occupied track will not foul the adjacent controlled track movement is authorized
 - Roadway workers performing on-ground work exclusively between the rails of the occupied track, do not break the plane of the rail nearest the adjacent controlled track movement is authorized
 - No on-group work is performed within 25 feet in front of or behind any on-track self-propelled equipment or coupled equipment permitted to move on the occupied track
- When occupied track is between two adjacent controlled tracks, each roadway worker must ensure all work is stopped and move to a PPS when either adjacent controlled tracks has one or more trains permitted at speeds greater than 25 MPH freight or 40 MPH passenger movements.
- Roadway workers are required to stop work until the trailing end of all trains or other on-track equipment moving on the adjacent controlled track has passed and remains ahead of the worker.
- When a train or on-track equipment stops on an adjacent controlled track before its trailing end has passed all of the affected roadway workers, work must not be performed ahead of the trailing end of the train or on-track equipment until:
 - On-track safety through train approach warning has been established on the adjacent controlled track
 - The EIC has directed the locomotive or on-track equipment operator that no further movement will be made until authorized by the EIC

EC-1/EC-1e Line 1 Authority

- Before occupying or fouling a controlled track to perform short-term work or move on-track equipment the EIC must:
 - Have a copy of the current day dispatcher bulletin for the territory involved
 - Receive authority to occupy or foul track and copy the authority onto line 1 of Form EC-1/EC-1e
- Use radio communication, if possible, when requesting Form EC-1/EC-1e line 1 authority and provide the required information
- Copy the Form EC-1/EC-1e line 1 authorities onto the prescribed form in the prescribed format
- When receiving and copying Form EC-1/EC-1e line 1 authority, copy required information into the remarks section
- After receiving and copying Form EC-1/EC-1e line 1 authority
 - Conduct a job briefing with all employees who will operate or work under the authority
 - In multiple track territory, ensure all employees covered by the protection acknowledge the specific track to be occupied or fouled
 - Ensure all occupants of on-track equipment initial the copied Form EC-1/EC-1e
 - If it has been 30 minutes or more between the initial job briefing and time the track will be occupied or fouled, read Form EC-1/EC-1e aloud and conduct another job briefing
- When issued a Form EC-1/EC-1e line 1 authority to follow a preceding train, do not foul or occupy the track or grant another work group authority until confirming and documenting the preceding train has passed the initial point of occupancy by visually identifying the train by locomotive number or verbal confirmation from the train crew or train dispatcher. The train location, engine number, and time must be re-verified each time a separate work group is granted permission to occupy
- The employee who received Form EC-1/EC-1e line 1 authority may permit on-track equipment movements not associated with the working group within the limits of the authority after:
 - Establishing on-track safety for the employees
 - Recording onto the proper form the name of the designated employee of the other work group and the nature of the work to be performed
 - If the authority was issued behind a train, the EIC must verify the preceding train has passed the point of occupancy by visually identifying the locomotive number or verbal confirmation of the train crew or train dispatcher
 - Document on form EC-1e the lead engine number, verification of train location, and time for each group fouling the authority
- Do not operate into any authority issued to another employee until that employee gives permission to occupy the track within the authority. If granted permission of opposing limits within the authority, operators of opposing equipment must:
 - Announce passing all mileposts
 - Confirm understanding of any do not pass limit.
- When operating within the limits of a Form EC-1/EC-1e line 1 authority employees must follow proper procedure described in rule.
- Employees operating within the limits of Form EC-1/EC-1e line 1 authority must make proper radio announcements as described in rule and use positive identification and state required information.
- When instructed by the train dispatcher to report by a specific location make sure
 - The entire movement is clear of the location in the specified direction before reporting by the location
 - To receive a new authority for those limits prior to occupying any portion of track reported by

- Promptly release Form EC-1/EC-1e line 1 authorities to the train dispatcher after the entire movement clears the limits of the authority. Make every effort to clear the limits before the expiration of the time authorized and do not consider the authority clear until the train dispatcher acknowledges his or her understand
- If unable to clear the limits of an authority before the time limit expires, contact the train dispatcher and request a time extension. If unable to contact the train dispatcher or if the train dispatcher does not grant a time extension, do not exceed restricted speed until the authority is cleared.

Individual Train Detection, Train Approach Warning, and Train Coordination

Individual Train Detection

- A lone worker may use individual Train Detection for on-track safety only after all requirements as described by rule have been met
- When using Individual Train Detection
 - Do not perform any work that interferes with the ability to see or hear the approach of a train or on-track equipment
 - Maintain a constant lookout for approaching trains and on-track equipment
 - Keep the completed SOTS1 form in possession at all times when fouling the track
 - When train or on-track equipment approaches, move to the PPS at least 15 seconds before the train or on-track equipment reaches the location. If the PPS is another track, working limits must be established on the track prior to beginning work.

Train Approach Warning

- Use train approach warning for on-track safety only after all requirements as described in rule have been met
- Employees protected by train approach warning must
 - Remain in a position that allows receiving a track approach warning from the watchman
 - Immediately move to the PPS. If PPS is another track, working limits must be established on the track prior to beginning work
- When train approach warning is used to protect more than one employee, the watchman must be equipped with required devices
- When train approach warning is used to protect only one employee, audible and visual warnings are not required when
 - Advanced watchman is not required
 - Watchman can physically touch the employee being protect
- Employee providing watchman duties for train approach warning must:
 - Not foul any tracks unless necessary to provide warning
 - Not perform any tasks unrelated to providing warning or that interfere with providing warning to the employee being protected
 - Provide warning as if every train or on-track equipment movement is approaching at the maximum authorized speed allowed
 - Provide warning sufficiently in advance to allow all workers and watchman to reach the PPS at least 15 seconds before the train and on-track equipment reaches the location not fouling any other track without protection

Train Coordination

- When necessary to establish on-track safety on controlled tracks with Train Coordination, the EIC must
 - Visually determine the train is stopped
 - Conduct a job briefing with the crew of the train
 - Determine the limits of the train's authority
 - Verify within track segment only one train holds exclusive authority for movement
 - Determine which method of operation and related rules are in effect
 - Instruct the train crew not to move unless directed by the EIC
 - Instruct the train crew not to release any authority until notified by the EIC that it is safe to do so
- Once Train Coordination is established the EIC must ensure no members of the working group foul any track outside of the train's authority
- When train Coordination on-track safety is no longer required
 - Ensure all roadway workers are clear of the track
 - Inform the train crew that protection is no longer required and the instructions of the train dispatcher will govern their movements

Working Limits on Non-Controlled Tracks

- Establishing work limits on non-controlled tracks
 - Make prior arrangements with the employee responsible for the track
 - Ensure the tracks are not occupied by any equipment not under the control of the EIC
 - Make the tracks inaccessible to all trains, locomotives and on-track equipment (using one of the methods as described by rule)
 - When using portable derails ensure they are placed 150 ft. from equipment and 150 ft. from the work area
- When remotely controlled switches provide access to non-controlled tracks, the EIC must verify all of the following with the employee responsible for operating the remotely controlled switches
 - Switches are lined in a position that prevents access into the tracks
 - Locking devices or blocking has been applied to the switches to prevent operation
 - Locking or blocking will not be removed until permission has been granted by the EIC
- On-track roadway maintenance machines engaged in weed spraying or snow removal may work when all of the conditions required by rule are met.

Working Limits on Controlled Tracks (Conditional Stop)

- When long-term working limits will be necessary, the EIC must request a dispatcher message to be issued. The request must be made 14 hours in advance
- Before any member of the working group fouls or occupies the track within working limits, the EIC must perform all required tasks
- Signs are required in conjunction with long-term working limits and must be
 - Clean and easily recognizable
 - Posted no more than 30 minutes in advance of the effective time
- If permanent conditions prevent the display of wayside signs as direct by rule
 - Train dispatcher must be notified
 - A dispatcher message must be issued stating how signs are displayed
- Wayside signs must be properly displayed according to rule
- Warning signs must be placed at least two miles but not more than two and one half miles from the working limits
- Conditional stop signs must be placed as required by rule

- The EIC is responsible for all train and on-track equipment movements within the working limits and must make a written record on the prescribed form of all movements permitted to enter and move within the limits
- Before granting permission for movements not part of the working group to enter or move within the working limits the EIC must
 - Ascertain all roadway workers and equipment of the working group are clear of the limits or that portion of the limits on which the movement will be authorized
 - Notify affected roadway work group the speed at which the trains or on-track equipment will be authorized to operate through the working limits
 - Determine the track or portion of track is safe for movement
- The EIC must communicate the required information when granting permission for a train or on-track equipment to enter long-term working limits
- The EIC may permit a train or on-track equipment to proceed to one intermediate location within the working limits and stop. When safe to do so, the EIC must clear the movement through the entire remaining limits
- After granting a train or on-track equipment permission to enter the working limits, the EIC must not allow roadway workers and equipment to foul the affected track until the trailing end of all trains or other on-track equipment has passed and remains ahead of the affected roadway workers
- The EIC must plan to have all roadway workers and equipment clear of the working limits before the expiration time. Before clearing the authority all tasks described in rule must be completed
- When the EIC determines the track cannot be cleared before the expiration time, he or she must take one of the following actions at least 5 minutes before the expiration
 - Obtain a new authority from the train dispatcher
 - Post a flagman at each warning sign.

Failure Defined

Failure occurs when:

- A proper job briefing has not been completed
- Roadway workers working on an adjacent track fail to get into a Predetermined Place of Safety prior to trains entering work area as necessary
- EIC does not have proper bulletins and document for working limits
- EIC does not receive or fails to copy the Form EC-1/EC-1e properly
- EIC does not follow procedure when allowing a train or on-track equipment into the working limits
- The proper signage is not set up for the working limits
- The signage is not properly cleared after the work authority has expired
- Improper placement of portable derails.

Test 35: Operating On-Track Equipment: Required Spacing and ½ Range of Vision

Rules

Rule 712.17

Purpose

The purpose of this test is ensure employees are operating equipment at a speed that will allow for stopping within one half the range of vision.

Preparation & Conditions

This test can be performed any time an employee is operating on-track equipment. This test should be performed using a simulated obstruction device (Banner or “Stick Man”)

Procedure

Employees operating on-track equipment must operate equipment at a speed that permits stopping within one-half the range of vision. Maximum authorized train speed on the same track or the speed listed in the speed chart for Rule 712.17 must not be exceeded, whichever is less.

Failure Defined

Failure occurs when:

- Authorized speed is exceeded or
- The simulated obstruction device is struck by the equipment.

Test 36: Working Under a Load

Rules

Rule Group 713 – Operating Cranes

Rule Group 2405 – Cranes and Hoisting Equipment

Purpose

The purpose of this test is to ensure that employees are working safely when working in conditions where a crane or hoisting equipment is present.

Preparation & Conditions

This test can be performed any time a crane or hoisting equipment is used to perform work.

Procedure

When operating cranes:

- Employee must be qualified to operate the crane
- Must not move a load over people
- Must not permit anyone to be under a load or between a load and a magnet attachment

Before a Crane is moved the following signals must be given:

- Two short blasts of the whistle before making a forward move
- Three short blasts of the whistle before making a reverse move

Employees qualified to perform work with cranes and hoisting equipment must:

- Respond to standard signals from the designated person only
- Properly sound warning signals
- Keep boom and cables away from all obstructions or power lines
- Turn off power before leaving equipment unattended
- Lower the load and secure the boom when clearing for a passing train
- Use tag lines when necessary to control loads that being moved higher than knee level. This does not preclude placing hands on a load for initial or final alignment

Employees qualified to perform work with cranes and hoisting equipment must not:

- Use dragging movement, unless performing dragline operations
- Exceed capacity for the lowest rated component
- Work under a suspended load or place yourself between a suspended load and an obstruction
- Leave a suspended load unattended

Do not allow any part of the boom, cable, or equipment to come within 12 feet of any power line or other overhead aerial cables until all of the following safety precautions have been taken.

- The owner of the power line is present on-site and
 - Determines the voltage and required procedure to de-energize and ground the lines
 - De-energizes and grounds the lines
 - Verifies the power lines are de-energized and it is safe to work

- After the power lines are de-energized, grounded, and verified to be safe by the qualified person on-site, the work may continue provided all other safety aspects are covered
- After the work has been completed, make certain all booms, cables, and equipment are at least 12 feet clear of power lines before power is restored to the lines

Only the designated employee is allowed to give signals to the crane operator. When giving signals:

- Use standard crane and derrick signals
- Have a clear understanding with the crane operator regarding the meaning of the signals to be used
- Remain in a position that is in clear view of the crane operator

Failure Defined

Failure occurs when:

- An employee who is not qualified operates the equipment without direct supervision of supervisor
- Employee operating equipment:
 - Moves a load over people
 - Does not provide proper signaling when moving
 - Places boom or cables near obstructions or power lines
 - Does not turn off equipment prior to leaving unattended
 - Does not lower and secure the boom for a passing train
 - Does not use tag lines properly
 - Inappropriately uses dragging movements
 - Exceeds capacity of equipment
 - Leaves a suspended load unattended

Test 37: Use of Seatbelts

Rules

Rule 2008.1

Rule 2503.2

Rule 2007.2

Safe Way Appendix – Seatbelt Requirements for Equipment Operators (Listed as information - not testable)

Purpose

The purpose of this test is to ensure equipment operators are properly secured inside equipment while operating.

Preparation & Conditions

This test can be performed any time equipment is being operated that requires the use of a seatbelt (see Safe Way Appendix – Seatbelt Requirements for Equipment Operators)

Procedure

Engineering employees operating mechanized equipment must wear seatbelt as described in the Safe Way Appendix – Seatbelt Requirements for Equipment Operators.

Failure Defined

Failure occurs when employee is not wearing a seatbelt when required to do so.

Test 38: Lock out/Tag out

Rules

Rule 2305.1

Rule 2503.1

Purpose

The purpose of this test is to ensure that mechanized equipment is properly secured prior to performing any maintenance or repairs on the equipment

Preparation & Conditions

This test can be performed any time an employee is performing maintenance or repairs on mechanized equipment

Procedure

Only qualified employees should perform maintenance and repairs on mechanized equipment

- Never leave running mechanized equipment unattended
- See that proper lock out/tag out devices are in place before performing maintenance or repairs

Failure Defined

Failure occurs when the mechanized equipment is not properly secured with lock out/tag devices prior to performing maintenance or repairs

Test 39: Dispatcher Issuing Authority

Rules

- Rule 600.3 – Accuracy of instructions and information repeated by employees
- Rule 602.1 – Verified blocking for EC-1 Track Authority after the line 1 verbiage has been edited
- Rule 602.2 – Ensure accuracy of the form EC-1
- Rule 606.1 – Permission to Pass a Stop Signal
- Rule 608.3 – Track must be clear/signals and switches must be locked before authorizing train to enter or foul
- Rule 614.1 – EC-1 Track Authorities
- Rule 614.3 – Track authority segment is not clear and is occupied by preceding train
- Rule 1009.3 – Procedure for transmitting and repeating mandatory directives

Purpose

Ensure when authority or instruction is issued by Train Dispatcher, it is done correctly. When transmitted verbally, the Train Dispatcher must verify that the authority or instruction is repeated back correctly.

Preparation & Conditions

Observe the Train Dispatcher verbally issuing an authority or instruction, or listening to historical tapes to verify that the Train Dispatcher listened to the repeat correctly.

Procedure

The preferred method is for the testing supervisor to observe processes by use of the traffic control management view workstation and voice recording systems. Events can be monitored in real time or by use of historical records through replay functions.

Failure Defined

This is a test failure when:

- Authority or instruction is issued not in compliance with the rules and/or procedures specified.
- The repetition does not match the issued wording and the Train Dispatcher does not detect the incorrect repetition.
 - Pay particular attention to numbers being repeated.
 - Numbers must first be pronounced, then stated digit by digit.

Test 40: Network Operations Center Office Safety

Rules

- Rule 100.1 – Taking the safe course – know and comply with rules and policies
- Rule 103.7e – Must not read unrelated literature unrelated to work while on duty
- Rule 104.1 – Perform duties in a safe/efficient manner/prevent unnecessary delays
- Rule 109.1.4 – Accurately complete HOS documentation
- Rule 1000.1 – Personal electronic devices cannot interfere with other safety or performance of duties
- Rule 1000.2 – Personal Electronic devices must be powered off and stored within Dispatcher consoles.
- Rule 1003.2 – Employees must not knowingly transmit profane remarks, unnecessary or irrelevant communication.
- Rule 2000.1 – Clean work areas & protection of hazards
- Rule 2014.1 – Slip, Trip and Fall Prevention

Purpose

The purpose of this test is to ensure the safety of the Network Operations Center environment as well as the employees that work there.

Preparation & Conditions

This test can be performed any time a Train Dispatcher is on-duty performing duties.

Procedure

Observe the employees for compliance with the rules, policies and procedures listed above.

Failure Defined

Failure occurs when the Train Dispatcher is observed not complying with the above rules, policies and procedures listed above.

Test 41: Passenger Train Emergency Preparedness Procedures

Rules

Joint - Passenger Train Emergency Preparedness Plan (Amtrak & CSX)

Purpose

This test determines the Train Dispatchers knowledge and location of the proper emergency preparedness documents and procedures

Preparation & Conditions

- Chief Dispatcher and PSCC must be immediately advised of any incident or situation that may affect the health or safety of passenger or employees or the safe operation of their assigned territory.
- Must understand the notification protocols
- Familiarity with other procedures and instructions contained in the Passenger Emergency Response Guidebook.
- Use of the Operation Profile and Grade Crossing malfunctions and Emergencies Manual to access specific line segment physical characteristics information.

Procedure

Request employee to produce copies of the following documents:

- Joint – Passenger Train Emergency Preparedness Plan (Amtrak & CSX)
- Operational Profiles(s) for assigned territories

Request employee to demonstrate working knowledge of how to reference these documents as it relates to emergency situations.

Failure Defined

Failure occurs when the Train dispatcher cannot determine the location of these documents and/or is unable to demonstrate working knowledge of these documents.

Test 42: Protection of Trains and Work Forces

Rules

- Rule 309.3 – Providing protection at passenger stations
- Rule 501.5 – Modifying EC-1 Track Authority
- Rule 503.2 – Train Dispatcher grants authority on main, signaled tracks and sidings
- Rule 504.14 – Dual control switching placed in hand operation
- Rule 504.31 – Permission to assist standing train
- Rule 601.2 – Maintaining blocking protection until no longer required
- Rule 603.2 – Train must be stopped before changing route that signals have been cleared for
- Rule 611 – Blocking Main tracks or Sidings
- Rule 612.4 – Moving train passed another train with undesired emergency
- Rule 618 – Defect Detector Verification process

Purpose

To ensure Train Dispatchers are properly protecting trains, equipment and work forces in compliance with rules, policies and procedures.

Preparation & Conditions

Must have an understanding of how the Computer Aided Dispatching (CAD) system functions, specifically with regard to placing blocks and protective tags and controls movement exceptions.

Procedure

The preferred method is for the testing supervisor to observe processes by use of the traffic control management view workstation. Specifically focusing on the proper use of the blocking system which restricts movement and protects employees on the ground from conflicting movements.

Failure Defined

This is a test failure when proper blocks and/or tags are not applied to the traffic control system as required by the rules, policies and procedures listed above.

Test 99: Special

Any relevant test or inspection not otherwise listed in this manual can be tested. A rule number must be chosen in OPTS to record this special test. Include a description of the test, as well as the results of the test.

When using local/special instructions that modify existing rules/instructions and this manual contains a relevant related test or inspection, that test must be used and local instruction information must be listed within the comment section in OPTS of that test.

